Research Methods in Language Attitudes

Attitudes towards spoken, signed, and written language are of significant interest to researchers in sociolinguistics, applied linguistics, communication studies, and social psychology. This is the first interdisciplinary guide to traditional and cutting-edge methods for the investigation of language attitudes. Written by experts in the field, it provides an introduction to attitude theory, helps readers choose an appropriate method, and guides through research planning and design, data collection, and analysis. The chapters include step-by-step instructions to illustrate and facilitate the use of the different methods as well as case studies from a wide range of linguistic contexts. The book also goes beyond individual methods, offering guidance on how to research attitudes in multilingual communities and in signing communities, based on historical data, with the help of priming, and by means of mixed-methods approaches.

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Foreword

In a short introductory sociolinguistics text, Edwards (2013: 31) wrote: 'Even though most of us would not venture an opinion on the state of string theory in physics for example, few of us are without opinions about language. These opinions may be "amateur" views of language, but they often have immediate consequences in everyday life, regardless of their accuracy or sensitivity.'

Probably all of us, either in our earlier years or here now opening this book for their first glimpse of language attitudes research, have engaged in such amateur activities. I know *I* did. In my years as an undergraduate in North Wales, I noticed that, when speaking with my college peers (and particularly friends) who came almost entirely from south-east England, my Welsh accent switched to standard Received Pronunciation (their accent). This was significantly different from my accent usage in my homeland of South Wales, where I would emphasise a distinctive South Welsh accent when attending a rugby match but shifted to a very different Cardiff accent when spectating at a soccer match. I conjectured that perhaps I was different from other folk, and more of a 'linguistic chameleon'. This intrigued me and, in my own major of psychology, I could find no explanation for such bizarre 'accent mobility' in that discipline, although I did come across, and was influenced by, sociolinguist William Labov's (1966) influential work on contextual language shifting in New York City.

Inspired, I set forth to conduct doctoral research in social psychology and formulate a theory (communication accommodation; indeed, a framework of much relevance to language attitudes studies, see Giles and Powesland 1975; Hadley et al. 2020) of such phenomena at the University of Bristol in the late 1960s. I was lucky enough to be mentored by Henri Tajfel there – arguably the father of intergroup relations and a perspective that provides a useful theoretical frame for language attitudes (Dragojevic 2016) and, subsequently, in Canada as a post-doctoral fellow, mentored also by Wally Lambert – the socio-psychological father of language attitudes studies. It should not go unmentioned that Henri published a critique of Lambert et al.'s (1960) seminal language attitudes study a year before it appeared in print (Tajfel 1959)! The current volume is a fitting place and occasion to pay homage to Wally – an inspiringly humane scholar – and for his pioneering methodological and empirical legacies for the study of language attitudes; pictured in Figure 0.1 when we were together at the Linguistic Society of America's Summer Institute in Oswego, NY, in 1972.

Figure 0.1 *Wally Lambert at the Linguistic Society of America's Summer Institute in Oswego, NY, 1972*

My journey has eventually brought me the honour of an invitation to write this Foreword from our editors (who, together with Marko Dragojevic, provided me with invaluable feedback on it). In a chapter for a recent award-winning Festschrift for Bob Gardner, Edwards (2020: 257) claimed the following: '[. . .] it is very pleasant to record that the study of the social psychology of language [. . .] has provided a number of important windows through which to observe human social life'. Not only is it pleasant for *me* to echo this, in tandem with always having been an avowed interdisciplinarian, but Edwards had also written (2020: 252) that within social psychology 'occupying an *honorable and valuable* position is the work on language attitudes [. . .] in the broader study of perceptions, stereotypes, and so on' (my italics). Yet, this has, perhaps, not always been the case, as while language attitudes studies across the social sciences and humanities flourished as novel in the 1970s, interest thereafter waned. Studies sporadically emerged descriptively and, mostly a-theoretically, often because the rationale for their conducting such work was merely that no such studies had ever been conducted in that region or nation.

However, I felt at the start of this century, there was a renaissance of work of this genre. Studies from a range of disciplines began to be published again with more tantalising sets of stimuli, mediating mechanisms, and outcome measures (e.g. Berl et al. 2020). This was a pattern that had been undocumented and could have been a fantasy of my imagination, given my roots and long-standing commitment to this area of inquiry. Hence, I thought this forum was a splendid opportunity to indulge in (admittedly) a more or less casual analysis of the number of studies appearing in two relevant journals known for airing work in this domain. For this purpose, I chose the *Journal of Language and Social Psychology (JLSP)* and the *Journal of Multilingual and Multicultural Development (JMMD)* as targets; while quite similar in their ability to attract language attitude submissions, they are also quite different in other respects (e.g. acceptance rates, number of articles published per se, cultural breadth of remit, etc.).
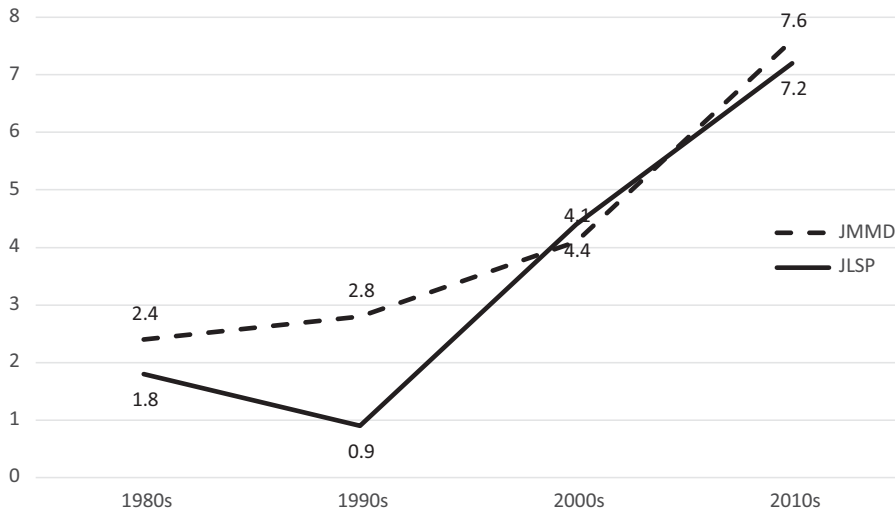
Figure 0.2 *Average number of language attitudes studies per decade for the* Journal of Language and Social Psychology *(*JLSP*) and the* Journal of Multilingual and Multicultural Development *(*JMMD*)*

Gratifyingly, my intuitions were confirmed in that recent decades really have seen major increases in the number of language attitudes studies published, with a similar pattern emerging for *both* journals (see Figure 0.2); indeed, the *JLSP* saw more of these articles published in the first four issues of 2020 than the mean for the period 2000–2019.

Examining the *proportions* of language articles appearing in these journals (see Figures 0.3 and 0.4), it can be seen that these have also increased in the last two decades, and even more so in the *JLSP*.

In the *JMMD*, it could be argued that other topics, such as metalinguistic awareness, language motivations, language anxiety, language ideologies, language values, and ethnolinguistic group vitality also constitute dimensions of language attitudes research not figuring into the analyses here; indeed, Smith et al. (2018) reported that 75 per cent of group vitality studies had emerged in the last fifteen years.

In parallel, consider Table 0.1 for the variety of parameters inherent in, and the scope of, language attitudes foci, giving credence to the notion that '[t]here is no generally accepted definition of "language attitude"' (Grondelaers 2013: 586), despite the helpful and valued convergence of views of such found in this volume. Put another way, the growth of language attitudes studies over the last couple of decades could be exponentially greater than depicted in Figures 0.2–0.4 and of course could be explored further with refined categories and coding reliabilities.
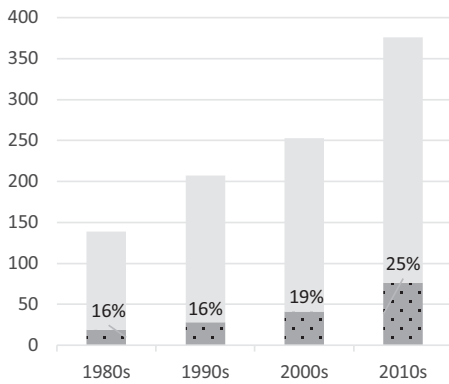
Figure 0.3 *Percentage of language attitudes articles (dotted) relative to total number of articles published per decade in* JLSP
Note: *Minus special issue pro- and epilogues and book reviews.*
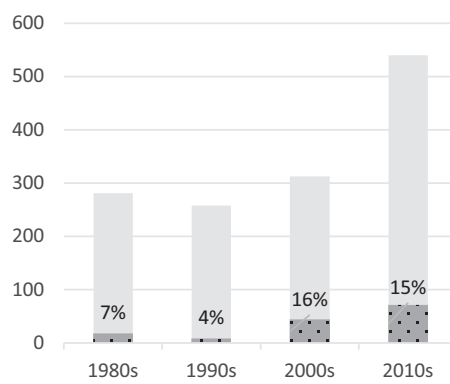
Figure 0.4 *Percentage of language attitudes articles (dotted) relative to total number of articles published per decade in* JMMD
Note: *Minus special issue pro- and epilogues, work in progress, miscellany, editorials, responses, and book reviews.*

Historically, and since the 1970s (e.g. Giles and Bourhis 1973), there has been much debate about the relative merits of, and defences for, measuring language attitudes in very different ways, which continues in more recent times (e.g. Garrett 2010; Dollinger 2015; Edwards 2017). Gratifyingly, the current, impressively comprehensive volume gives credence to the valued diversity of approaching language attitudes from multiple stances, ideologies, and disciplines. Clearly, the field has come a long way (see Xie et al. 2021; Dragojevic et al. 2021; Kinzler 2021) since we reviewed this area along methodological lines in the late 1980s (Ryan et al. 1988), not least with the advent of a contemporary move to analyse 'big data' sets (see Grondelaers et al. 2020) and talk about language attitudes on social media (Szitó 2020). Nonetheless, it is gratifying to see that the original organisational structure of language attitudes studies that we introduced more than 30 years ago (Ryan et al. 1988) has stood the test of time and been retained in this volume with the constituent rubrics of Parts 1–3. In addition to reflecting historically conventional areas of language attitudes study (e.g. matched- and verbal-guise studies, and perceptual dialectology), this book includes new areas, such as mediated communications (like print and social media). Moreover, this book provides insights into the study of language attitudes in different contexts, including semi-formal interviews, focus group discussions, and signing communities as well as advocating mixed-methods approaches.

The editors mentioned to me that they had wished they themselves had had access to such a volume as this when they first began their work in this area. How

Table 0.1 *The diversity of factors examined in language attitudes studies[a]*

Language varieties or phenomena examined in the *JLSP* include:	Perceptual and evaluative outcome variables examined in the *JLSP* include:	Language attitudes and beliefs in the *JLSP* and *JMMD* that have been related to include
Abstract/concrete language	Accommodations perceived	Acculturation
Accommodative practices	Attitude change resistance	Assimilation
Advice-giving	Competence/status and solidarity/warmth	Code-switching/-mixing
Aggression expressed	Credibility	Foreign language learning
Gratitude expressed	Dynamism	Language change/shift
Hedges	Equivocation perceived	Language planning
Interruptions	Integrity/social attractiveness/friendliness	Language policies
Irony and metaphor	Perceived problem-solving	Language preferences
Languages, dialects, and accents	Perceptions of bias and hostility	Language revitalisation
Linguistic complexity	Personnel decisions	Language teaching
Patronising talk	Persuasiveness	Linguistic belongings
Profanity	Physical attractiveness	Mother tongue maintenance
Rhetorical questions	Resilience	Second language learning
Self-disclosures	Self-esteem	Talk on TV
Speech rate	Stress experienced	TV viewers' attitudes
Voice quality	Veracity	Written language variation

[a] Ordered alphabetically per column.

true those words are for many of us! Arguably, most scholars – albeit not all (e.g. Pharao and Kristiansen 2019, and even more broadly, Angus and Gallois 2018) – are adherents to one or other limited constellation of quantitative or qualitative approaches. Besides attracting fresh faces to this field, my hope is that the innovative emergence of this book will excite and stimulate more seasoned language attitudinalists to triangulate and – ambitiously and somewhat courageously – incorporate many more methodological lenses into their own works than otherwise they may have taken. In other words, there is a need to move up out of our silos and methodological (ingroup) identities to learn from and appreciate each other's approaches and establish a more interdisciplinary, superordinate category of language attitudes scholars. Put another way, the all-too-common allegiance to specific methodological identities is another hidden area of intergroup relations and communication (see Nussbaum et al. 2012) and such between-group barriers would benefit from being erased. Relatedly, there is an intricate interrelationship between method and theory that can be seen across the chapters following this, in that certain procedures lead to the construction of certain kinds of theories and interpretive stances, while the converse is also true.

Currently, there is no companion handbook of *theories* in our area, and what is available (see e.g. Giles and Marlow 2011; for a recent model, see Drożdżowicz 2021) typically arises from – and is constrained by – a narrow set of methods. Hence, a move to embrace a creative rapprochement of the broad brush of methods manifested in this volume could, consequently, unleash a rich, novel set of multi-layered theoretical frameworks, as well as more far-reaching conceptualisations and definitions of what we refer to as language attitudes.

Finally, given their breadth and depth, the chapters in this book are unique in their remit and in their potential to produce quantum leaps in the study of language attitudes. It is no less than a brave new world that could likely yield what Schrodt (2020) differentiates between 'great' from 'good research', in that the former articulates more thought-provoking questions, producing newsworthy findings that advance theory, and is crafted for a wide-ranging and global audience.

Howard Giles

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1 An Introduction to Language Attitudes Research

Ruth Kircher and Lena Zipp

Language attitudes have been of great interest to researchers in the behavioural and social sciences as well as the humanities since at least the early 1930s (e.g. Pear 1931; Bloomfield 1933). Since then, they have become an integral part of the social psychology of language, the sociology of language, sociolinguistics, applied linguistics, and communication studies. As Howard Giles' Foreword to this volume shows, recent decades have seen a remarkable proliferation of language attitudes studies – and in the current context of rapidly increasing globalisation and migration, where contact with different linguistic groups is becoming the norm for more and more individuals and communities, such research is gaining even greater importance. Given the highly interdisciplinary nature of the study of language attitudes, one of the most notable trends in recent years has been the growing agreement among researchers that 'cross-fertilization is desirable' in both theory and practice (Dewaele 2009: 186).

This book thus aims to encourage language attitudes research and facilitate interdisciplinary exchanges by providing a comprehensive overview of the three types of methods by means of which language attitudes can be investigated: the analysis of the societal treatment of language (Part 1), direct methods of attitude elicitation (Part 2), and indirect methods of attitude elicitation (Part 3). Some of the methods included here have previously been discussed in other publications from one discipline or another, but with different degrees of detail and varying amounts of instruction (e.g. Oppenheim 2000; Garrett et al. 2003; Garrett 2010); for others, this book constitutes the very first time they are being considered from a methodological point of view. For all of these methods, it is the first time they are brought together in the form of a volume like this, which focuses exclusively on language attitudes, encompasses all three types of methods, and offers extensive instructions on data collection and analysis techniques. Moreover, this book is novel in that it includes an entire section that covers the most significant overarching issues in language attitudes research, thereby presenting key practical guidance which goes beyond individual methods (Part 4).

To ensure a thorough theoretical grounding, this chapter introduces key aspects of language attitude theory as well as providing an overview of the most relevant previous research that has elucidated the nature of language attitudes. The chapter begins with a brief introduction to attitude theory in general, including definitions of attitudes, the main frameworks in which they have been studied, and their components. This is followed by information about language

1

attitudes more specifically – namely their definition, the notion of language attitudes as reflections of social norms, the related issue of language attitude change, and the difference between (and inter-relatedness of) language attitudes and ideologies. Subsequently, the chapter discusses the implications and consequences that language attitudes can have at the individual and the societal level before summarising the main socio-structural, socio-demographic, and situational variables that have been shown to affect language attitudes. This is followed by a discussion of the primary evaluative dimensions of language attitudes, status and solidarity. The chapter concludes with an overview of the different types of methods that can be used to investigate language attitudes, which also serves to outline the structure of this book.

1.1   Attitudes

The classic definition of an *attitude* is that by Allport (1935: 810), who describes it as 'a mental and neural state of readiness, organised through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related'. Another commonly referenced definition is that by Ajzen (1988: 4), according to whom an attitude is 'a disposition to respond favorably or unfavorably to an object, person, institution, or event'. Eagly and Chaiken's (1993: 1) definition of an attitude as 'a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor' is also cited frequently. The commonality of these definitions is that they hint at one of the main challenges of investigating attitudes: namely that attitudes are states of readiness, dispositions, or tendencies – and therefore have no overt substance. This entails methodological difficulties in determining the right kinds of data from which attitudes can be inferred (Agheyisi and Fishman 1970; see also Garrett 2010). Consequently, '[t]he translation of the notion "attitude" from the subjective domain into something objectively measurable [. . .] is a common problem in any research that involves social categorization and judgements' (Romaine 1995: 288). The methods discussed in this book demonstrate different manners in which this problem can be addressed when investigating attitudes with a focus on language.

It is widely accepted that the main function of attitudes is to organise and structure stimuli in an otherwise ambiguous informational environment in order to enable individuals to adapt to this environment (e.g. Eagly and Chaiken 1998). As Allport (1935: 806) puts it:

> Without guiding attitudes the individual is confused and baffled. Some kind of preparation is essential before [they] can make a satisfactory observation, pass suitable judgement, or make any but the most primitive reflex type of response. Attitudes determine for each individual what [they] will see and hear, what [they] will think and what [they] will do.

Attitudes thus exert selective effects on information processing in favour of what is congruent with one's existing attitudes (Eagly and Chaiken 1998). This is of particular relevance in intergroup situations, where the attitudes that individuals hold – especially of outgroups – are often not even moderated by their experiences with group members who do not match the individuals' expectations (Rothbart 2001). Tajfel (1981: 156) explains this as follows:

> encounters with negative or disconfirming instances would not just require a change in the interpretation of the attributes assumed to be characteristic of a social category. Much more importantly, the acceptance of such disconfirming instances threatens or endangers the value system on which is based the differentiation between the groups.

While much less research has been dedicated to the formation of attitudes than to their functions, it is widely acknowledged that attitudes in general (as well as language attitudes in particular) are socially constructed and learned from experience. This usually happens early in life and the sources of attitudes may range from caregivers, friends, and neighbours to individuals one has never even met in person, such as online acquaintances, newspaper journalists, and people who appear on television (e.g. Banaji and Heiphetz 2010). Attitudes are also frequently engendered and reinforced in education institutions (e.g. Karatsareas 2018). They can be transmitted in various ways, which in the case of language attitudes include not only explicit language criticism (e.g. Walsh 2014) but also subtle linguistic biases (e.g. Beukeboom 2014) and media portrayals (e.g. Dragojevic et al. 2016).

There are two main theoretical frameworks for researching attitudes: behaviourism and mentalism. Behaviourism, the earlier approach, considers attitudes to be located directly in people's behavioural responses to various stimuli (e.g. Bain 1928; Osgood et al. 1957). Over time, however, it has become apparent that behaviour tends not to be consistent across contexts: 'Every particular instance of human action is [...] determined by a unique set of factors. Any change in circumstances, be it ever so slight, might produce a different reaction' (Ajzen 1988: 45). A person's actual behaviour in a particular situation thus depends not only on their attitudes but also on numerous other factors, including the target their action is directed at, the context, the time and occasion, and the immediate consequences the behaviour can be expected to have. Hence, the fact that a person behaves in a particular way in one specific situation is by no means a guarantee that they will behave in the same manner again, which makes single instances of behaviour rather unreliable indicators of attitudes in general (e.g. Gross 1999; Banaji and Heiphetz 2010). This lack of a direct, predictive relationship between attitude and behaviour poses a major problem to the behaviourist framework. In line with a more general paradigmatic shift within the behavioural and social sciences, the behaviourist framework has therefore become viewed as rather outdated, and for some time now, most contemporary research has adopted a mentalist approach instead. Corresponding to the

definitions provided above, the mentalist framework considers attitudes to be dispositions or tendencies to respond in certain ways to certain stimuli – that is, attitudes are assumed to influence individuals' behaviour, rather than fully determine it (e.g. Gardner 1982).

While early behaviourist research deemed attitudes to be unitary constructs, equating them with overt behaviour, nowadays it is widely agreed that attitudes have a multiple componential structure. Numerous more or less complex componential models of attitude structures have been devised by various scholars working within the mentalist framework (see e.g. Agheyisi and Fishman 1970 for an overview). The most prevalent model is one that posits three different components: *affect* – the feelings elicited by an attitude object; *cognition* – the beliefs held about the attitude object; and *conation* – behavioural intentions as well as actual behaviour directed at the attitude object (e.g. Rosenberg and Hovland 1960; Baker 1992; Garrett 2010). Studies such as Breckler's (1984) notorious snake experiments have substantiated the validity of this tripartite model and indicate strong support for affect, cognition, and conation as distinct attitude components. Some researchers argue for the primacy of the affective component (e.g. Banaji and Heiphetz 2010) because certain studies suggest that this component may be more readily accessible than the others (Verplanken et al. 1998) and that it is a stronger predictor of behaviour than the cognitive component (Lavine et al. 1998). Be that as it may, it is generally agreed that '[a]t the *individual level*, attitudes influence perception, thinking and behaviour', and '[a]t the *intergroup level*, attitudes towards one's own group and other groups are the core of intergroup cooperation and conflict' (Bohner 2001: 240, emphasis in original text). The importance of attitudes at the intergroup level is due to the fact that all intergroup relations are characterised by positive as well as negative prejudices (feelings), stereotypes (beliefs), and discrimination (behaviour; Bourhis and Maass 2005).

1.2   Language Attitudes

Based on this understanding of the multiple componential structure of attitudes in general, *language attitudes* are traditionally defined as 'any affective, cognitive or behavioural index of evaluative reactions towards different varieties and their speakers' – or, more inclusively, their users (Ryan et al. 1982: 7). It is important to note, however, that there may be inconsistencies between the three components. For instance, with reference to the Canadian province of Quebec, Oakes (2010) explains that it is far from uncommon for young Francophone Quebecers to hold a stronger emotional attachment to French than to English (feelings) while nevertheless recognising the importance of English in this day and age of globalisation (beliefs), and therefore learning and using English for socio-economic reasons (behaviour).

While Ryan et al.'s classic definition only makes reference to attitudes towards entire varieties (i.e. languages, dialects, accents), there is in fact also a growing body of research regarding attitudes towards particular linguistic features and phenomena, including attitudes towards quotatives (Buchstaller 2006), vocal fry (e.g. Yuasa 2010), code-switching (Dewaele and Wei 2014), forms of address (Moyna and Loureiro-Rodríguez 2017), and multilingualism (Kircher et al. 2022). These also fall under the remit of language attitudes.

The inclusion of the language users in the definition of language attitudes is due to the close link between language and *social identity* – that is, those parts of an individual's self-concept that are linked to their membership in particular social groups (Tajfel and Turner 1986). Each individual has multiple social group memberships (based on e.g. their age, gender, sexual orientation, cultural background, skin colour, and mother tongue) and therefore also a repertoire of numerous social identities that vary in their overall importance to the self-concept (e.g. Hogg 1995). As Tajfel and Turner (1986) point out, not all intergroup differences actually have evaluative significance, and those that do may vary from group to group. Yet, based on a large body of research evidence, it has long been acknowledged that language is one of the most important symbols of social identity, 'an emblem of group membership', in language communities around the globe (Grosjean 1982: 117; see also e.g. Edwards 1994). The symbolic nature of language naturally finds expression in the attitudes that people hold towards varieties and their users: 'If language has social meaning, people will evaluate it in relation to the social status of its users. Their language attitudes will be social attitudes' (Appel and Muysken 1987: 12). Attitudes towards particular varieties therefore reflect the attitudes that people hold towards their users (e.g. Ryan et al. 1982; Hill 2015a; Dragojevic et al. 2021). There are two key cognitive processes at play that account for this: categorisation and stereotyping. Upon first encountering someone new, individuals use language cues to make inferences about the other person's social group membership(s) – and then, in turn, attribute to the new person those traits that are stereotypically associated with their inferred social group(s) (Dragojevic and Giles 2016; see also e.g. Lambert 1967; Ryan 1983; Dragojevic et al. 2018). The fact that language provides 'a critical, and potentially primary way in which we divide the social world' (Kinzler et al. 2010: 584) has important implications, which are discussed in detail below.

Since language attitudes are reflections of people's attitudes towards the corresponding language users, it follows that language attitudes do not indicate either linguistic or aesthetic quality per se. Instead, they are always contingent upon knowledge of the social connotations that specific varieties hold for those who are familiar with them, upon 'the levels of status, prestige, or appropriateness that they are conventionally associated with in particular speech communities' (Cargile et al. 1994: 227). This was evidenced by the experiments carried out by Giles and colleagues to disprove the 'inherent value' hypothesis and prove the 'imposed norm' hypothesis (Giles et al. 1974, 1979). Language attitudes

should therefore be considered as 'expressions of social convention and prefer-ence which, in turn, reflect an awareness of the status and prestige accorded to the [users] of these varieties' (Edwards 1982: 21).

From this, in turn, it follows that language attitudes are not static but that they can change when the status and prestige of the language users change – even if such change takes time (e.g. Dewaele 2009; Garrett 2010). This may happen, for example, as a result of sustained social and cultural developments, as illustrated by Willemyns' (1997; 2006) account of the altered intergroup relations between the Flemings and the Walloons in Belgium due to shifts in industry, which led to corresponding changes in attitudes towards Flemish and French. It may also happen as a result of concerted language planning efforts, as demonstrated by Lambert et al. (1960), Genesee and Holobow (1989), and Kircher (2014a), whose work traces the amelioration of attitudes towards French in Quebec in the wake of language legislation that promoted the francisation of the province. Moreover, language attitudes may also change more dynamically as the frame of reference for categorisation and social identification is altered, which is discussed in more detail below.

Language attitudes are sometimes equated with language ideologies – and the two certainly share several important characteristics. For instance, like language attitudes, ideologies are never about language alone, and the linkage of linguistic features (such as spelling and grammar) with non-linguistic features (such as a language user's social background or personality traits) is highly pervasive (e.g. Vessey 2016). As Woolard (1998: 3) notes, language ideologies 'envision and enact ties of language to identity, to aesthetics, to morality, and to epistemology. Through such linkages, they underpin not only linguistic form and use but also the very notion of the person and the social group'. However, there are key differences between attitudes and ideologies with regard to their structure and the extent of their prevalence. One of the earliest definitions of *language ideologies* characterises them as 'sets of beliefs about language articulated by users as a rationalization or justification of perceived language structure and use' (Silverstein 1976: 193). To this day, there remains a consensus that ideologies consist of 'systematically-held beliefs about language that are shared throughout a community' (Vessey 2013: 660). Frequently, these sets of beliefs even become naturalised to the extent that community members perceive them as 'common sense' (Milroy 2001). As indicated by these definitions, one of the key differ-ences between language ideologies and language attitudes is that ideologies constitute a community-level phenomenon – while attitudes are affected by a broad range of factors relating to specific individuals (which are outlined below) in addition to the sets of beliefs that are held at the community level (see also Oakes 2021). As Dragojevic et al. (2013: 11) put it: 'Language ideologies represent broad, socio-cultural schemas that shape the development of intraper-sonal attitudes towards particular language varieties and their speakers'. A further key difference is that, in addition to the sets of beliefs that make up ideologies, the structure of attitudes also comprises feelings and behaviours, as

outlined above. Language attitudes and language ideologies are thus distinct concepts and should not simply be conflated (see also e.g. Garrett 2010; Oakes 2021). The focus of this book is specifically on language attitudes.

1.3   Implications and Consequences of Language Attitudes

Due to the close link between language and social identity, individuals tend to react to language as though it were indicative of the personal and social characteristics of the language user – for better or for worse (Cargile and Giles 1997). It often only takes a few seconds to form an impression of an interlocutor's supposed personality, capabilities, and attributes, and to thereby categorise them as an ingroup or an outgroup member. Since people strive to hold positive social identities – and more specifically, social identities which compare favourably to those of relevant outgroup members – ingroup favouritism is a widespread phenomenon (e.g. Giles and Johnson 1987; Hewstone et al. 2002). It is, however, not the only force behind linguistic judgements: They also depend on factors such as the aforementioned status and prestige of the linguistic groups. Notably, research has shown that robust social preferences for ingroup members as well as for language users from high-status social groups are prevalent even in children from a very early age (e.g. Kinzler et al. 2012a; Kinzler and DeJesus 2013a; Byers-Heinlein et al. 2017).

As Cargile and Giles (1997: 195) note, the significance of language attitudes lies in the fact that they 'bias social interaction – and often in those contexts where important social decision-making is required'. Individuals who are users of varieties with low status, as well as those who are perceived as outgroup members, are thus likely to face stigmatisation, challenges, and barriers in almost every sphere of their lives. This has been shown to range from education (e.g. Sachdev et al. 1998) to employment (e.g. Giles et al. 1981), the search for housing (e.g. Purnell et al. 1999), and even adoption procedures (e.g. Fasoli and Maass 2019). It affects not only basic levels of credibility (e.g. Lev-Ari and Keysar 2010) and co-operation (e.g. Kristiansen and Giles 1992) but also extends to the treatment that individuals receive in institutional contexts such as the judicial system (e.g. Dixon et al. 2002). Since people react to language as if it were an indicator of the personal and social characteristics of its users, discrimination based on language is effectively a proxy for discrimination based on individuals' (perceived) sexual orientation, immigration background, ethnicity, and other salient social group memberships. This is an important issue for language attitudes studies to address.

There is a long tradition of research which demonstrates that language attitudes affect not only how people perceive and treat others, but also how they engage with language themselves. Attitudes have been shown to have implications for the languages that individuals decide to learn (e.g. Gardner 1982;

Gardner and MacIntyre 1993) and for how frequently they use these languages (e.g. Edwards and Fuchs 2018). Attitudes also influence which languages a person decides to use in which contexts and with whom, including the decision of which language(s) to pass on to their children (e.g. De Houwer 1999; Kircher 2022). Moreover, attitudes have a significant bearing upon the varieties of particular languages that people use, and upon the extent of this variation (e.g. Ladegaard 2000; Hundt et al. 2015; Hawkey 2018; Hawkey 2019; see also Kristiansen and Jørgensen 2005). Notably, this is not static: Giles' communication accommodation theory (CAT) elucidates how attitudes affect individuals' adjustments to their language use during interactions in order to create, maintain, or decrease social distance from their interlocutors (Giles 1973; Giles and Ogay 2007; see also Leimgruber 2019).

The influence of language attitudes at the micro level of individual linguistic choices naturally also has consequences at the macro level. For instance, language attitudes influence language change (e.g. Kristiansen 2011). Moreover, in multilingual societies, language attitudes play a crucial role in whether languages undergo shift and loss, or whether they are maintained and even revitalised (e.g. Sallabank 2013; Durham 2014; Hornsby 2015). Furthermore, it has long been recognised that knowledge about language attitudes is fundamental to the formulation of effective language planning measures – for without such knowledge, it is impossible to predict which measures are likely to achieve their intended aims, and which ones are destined to fail (Cargile et al. 1994; see also O'Rourke and Hogan-Brun 2013). As Lewis (1981: 262) puts it:

> Any policy for language [...] has to take account of the attitudes of those that are likely to be affected. In the long run, no policy will succeed which does not do one of three things: conform to the expressed attitudes of those involved; persuade those who express negative attitudes about the rightness of the policy; or seek to remove the cause of the disagreement.

Research has shown time and again the lacking effectiveness of policy and planning measures which fail to take account of the attitudes of those who will be affected (e.g. Hilton and Gooskens 2013; Kircher 2016a). In the context of language planning, it is also important to note that language attitudes can function as both, 'input into and output from social action' – and language planners often strive for this kind of two-way function when devising planning measures (Garrett 2010: 21).

1.4   Factors That Influence Language Attitudes

There are various models of language attitudes that have been developed within the mentalist framework (e.g. Giles and Ryan 1982; Ryan et al. 1982, 1984; Cargile et al. 1994; Cargile and Bradac 2001; see Giles and Marlow 2011 for an overview). They all reveal the complexity of language

attitudes, including the fact that not everyone – even within the same social group – holds the same language attitudes. The socio-demographic variables that have been shown to influence a person's language attitudes include their age (e.g. Paltridge and Giles 1984), their gender and location (e.g. Bellamy 2012; Montgomery 2012; Loureiro-Rodríguez et al. 2013; Price and Tamburelli 2019), their educational level (e.g. Dewaele and McCloskey 2014; Kircher and Fox 2019), and the amount of contact they have with the relevant language group (e.g. Hundt 2019; Kircher and Fox 2019). Certain personality characteristics – for instance, extraversion, emotional stability, and tolerance of ambiguity – have also been found to affect language attitudes (e.g. Dewaele and McCloskey 2014). Moreover, for deaf and hard-of-hearing individuals, language attitudes are influenced by the age of onset of their hearing loss, the age of sign language acquisition, the hearing status of their parents and siblings, and the number of years they have spent at a school for the deaf (Kannapell 1985, 1989).

A further factor with a bearing upon language attitudes is the strength of a person's social identity that is associated with a particular variety (e.g. Kannapell 1985, 1989; Cargile and Giles 1997; Kircher 2016b). However, the influence of social identity on language attitudes is not always straightforward: Changes in the frame of reference for categorisation and social identification may dynamically affect language attitudes. For instance, Dragojevic and Giles (2014) showed that when Californians were asked to judge an American Southern English accent, this variety was evaluated much more positively when it was compared with Punjabi-accented English (i.e. when there was an international frame of reference, and speakers with an American Southern English accent were categorised as ingroup members) than when it was compared with a Californian accent (i.e. when there was an interregional frame of reference, and speakers with an American Southern English accent were categorised as outgroup members). As the researchers note: 'That the same [language user] can be categorised as an ingroup or an outgroup member is, in part, made possible by the fact that language cues [. . .] can index *multiple* identities at different levels of abstraction' (Dragojevic and Giles 2014: 93; see also Abrams and Hogg 1987).

There are numerous further situational variables that have been shown to affect language attitudes, including the immediate social situation: Varieties or even specific linguistic features that tend to be evaluated negatively in one situation might, under different circumstances, be perceived positively (e.g. Carmichael 2016). Cargile et al. (1994) illustrate this with the example of a slow speech rate, which is likely to be considered odd during introductions at a cocktail party, yet would probably be perceived as entirely appropriate in a lecture on nuclear physics, where it would be seen as an attempt to facilitate the transmission of highly technical information. The interpersonal history between the interlocutors constitutes another important influencing variable: The more developed the interpersonal history, the less likely an individual will be to hold attitudes that are purely based on another person's language use – because 'attitudes triggered by various linguistic features are most likely to affect recipients' behaviours

towards senders in contexts of low familiarity' (Cargile et al. 1994: 223). When individuals are unfamiliar with one another, their expectations about the likely linguistic behaviour of their interlocutor can also play a role in shaping attitudes. If an individual negatively violates expectations by using a less prestigious variety than anticipated, this leads to even more negative evaluations (compared to evaluations of interlocutors who use the variety that is expected of them); and if they violate expectations by using a more prestigious variety than anticipated, this leads to even more positive evaluations (see e.g. Dragojevic et al. 2021 for a discussion of the relevant literature). Among hearing individuals, listening conditions also have a bearing upon language attitudes, with noisy listening conditions making it more difficult to process speech – which, in turn, results in more negative language attitudes (e.g. Dragojevic and Giles 2016). Moreover, a growing body of research demonstrates that individuals shift in their perception of linguistic features if they are primed with relevant information (Hay et al. 2006; Hay and Drager 2010; Carmichael 2016; moreover, Drager et al. 2010 demonstrate that priming affects production as well as perception).

In addition to the socio-demographic and situational variables outlined above, there are also two main socio-structural factors that influence the formation and expression of language attitudes: standardisation and vitality (Ryan et al. 1982). *Standardisation* is said to have occurred when a formal set of norms defining the 'correct' usage of a language has been codified (usually by means of dictionaries and grammar books) and this codified form has become accepted within the relevant speech community (e.g. Fishman 1970; Schneider 2007). Typically, the process of standardisation is advanced and confirmed via such institutions as the government, the education system, and the mass media (e.g. Havinga 2018, 2019; Rutten et al. 2020). The standard consequently becomes associated with these institutions, the kinds of interactions that most commonly occur within them, and the sets of values that they represent (e.g. Fishman 1970; Schneider 2007). Notably, recent research indicates that the linguistic proximity of the variety that undergoes standardisation and the new standard itself is also a factor that impacts speakers' attitudes (Vari and Tamburelli 2020). The second socio-structural variable that affects language attitudes, *vitality*, refers to the number of interaction networks that actually employ a particular variety for essential functions: 'The more numerous and more important the functions served by the variety for the greater number of individuals, the greater is its vitality' (Ryan et al. 1982). A theory of so-called ethnolinguistic vitality was proposed by Giles and his colleagues. Defining *ethnolinguistic vitality* as 'that which makes a group behave as a distinctive and active collective entity in intergroup situations' (Giles et al. 1977: 308), they systematise the numerous variables relating to ethnolinguistic vitality by organising them under three main headings: status, demography, and institutional support. The more status a variety and its users have, the more favourable a linguistic group's demographic profile is, and the more institutional support the linguistic group and its variety receive, the more ethnolinguistic vitality the variety is considered to have (see e.g. Smith et al. 2018 and

Bourhis et al. 2019 for overviews of vitality models and the development of ethnolinguistic vitality theory over the last four decades). While both standardisation and vitality are conceivably objective factors, subsequent developments of ethnolinguistic vitality theory have also focused on the subjective assessment of these factors (e.g. Bourhis et al. 1981; Giles and Ogay 2007) because this is 'as important as, if not more important than, the [...] objective vitality. Fundamentally, individuals act based upon what they perceive' (Smith et al. 2018: 3). While objective and subjective vitality tend to be similar (e.g. Harwood et al. 1994), they are not always the same – and in some cases, there are noteworthy differences (e.g. Sachdev and Bourhis 1993; Kuipers-Zandberg and Kircher 2020). Notably, strong vitality enhances the potential for standardisation – while, in turn, standardisation contributes substantially to vitality (Ryan et al. 1982). The bearing of standardisation and vitality upon attitudes is particularly pertinent for varieties that systematically receive little or no official recognition, such as sign languages in countries around the globe. While the last two decades have witnessed a wave of campaigns to grant legal status to sign languages with the aim of protecting and promoting their vitality, the outcomes of such campaigns have been limited, and in many countries, especially language acquisition and education rights are not yet sufficiently enshrined in the law (De Meulder and Murray 2017; see also e.g. Hill 2015a; De Meulder 2019). This is another important issue for language attitudes studies to address.

1.5   The Evaluative Dimensions of Language Attitudes

When researching language attitudes, it is important to bear in mind that they are traditionally considered to have two main evaluative dimensions: namely status and solidarity. Woolard (1989: 90) summarises the distinction as being between 'the desire to get ahead in some way' (status) and 'the desire to be accepted by [a social] group' (solidarity). More specifically, a variety with high status is one that is associated with power, economic opportunity, and upward social mobility. Attitudes on the status dimension are thus linked with the variety's utilitarian value (e.g. Gardner and Lambert 1972). By contrast, a variety that is evaluated positively on the solidarity dimension is one that elicits feelings of attachment and belonging – it holds 'vital social meaning and [...] represent[s] the social group with which one identifies' (Ryan et al. 1982: 9). Attitudes on the solidarity dimension are thus linked with ingroup loyalty.

Studies conducted over several decades and in numerous parts of the world have yielded empirical support for the notion that status and solidarity are independent evaluative dimensions (see e.g. Genesee and Holobow 1989 for an overview). Consequently, these dimensions are considered to have 'a universal importance for the understanding of attitudes' (Ryan et al. 1988: 1073; see also e.g. Dragojevic and Giles 2016). Some researchers have found there to be

more than two dimensions, and some have labelled them differently. For instance, Lambert (1967) distinguishes between one status-type factor, termed *competence*, and two solidarity-type factors, termed *personal integrity* and *social attractiveness*. Cargile (1997), on the other hand, distinguishes between one solidarity-type factor, labelled *attractiveness*, and two status-type factors, labelled *status/dynamism* and *job suitability*. The dimensions of status and solidarity should certainly not be seen as exhaustive. In fact, *dynamism* has emerged as a separate dimension on several occasions (e.g. Zahn and Hopper 1985) and has recently received a certain attention in the literature on language change, where it has been found more important than *superiority* in the development of neo-standards (e.g. Kristiansen 2009). Moreover, in recent research regarding attitudes towards childhood multilingualism, *cognitive development* has emerged as an additional dimension (Kircher et al. 2022). Yet, previous factor analytic research has always shown status-type factors and solidarity-type factors to be clearly distinct from one another (e.g. Genesee and Holobow 1989; Woolard and Gahng 1990; El-Dash and Busnardo 2001; Kircher 2022).

So far, the only exception to this has been found in research into *multiethnolects* – that is, newly emerging contact varieties that have their origins in the mixed multicultural neighbourhoods of urban centres with large immigrant populations. In such contexts, if there is no consistent target variety for newcomers, multiethnolects can develop as immigrant children 'acquire combinations of language features from a rich "feature pool" of linguistic forms influenced by a wide variety of languages, dialects and learner varieties' (Cheshire and Fox 2016: 288). The only known factor-analytic study of a multiethnolect, namely Multicultural London English (Kircher and Fox 2019), found that attitudes towards this variety did not manifest in terms of status and solidarity. Instead, all status-related and solidarity-related items loaded onto a single significant factor – despite the fact that these same items had clearly loaded onto separate status-type and solidarity-type factors in previous research. As noted above, language attitudes are contingent upon the social connotations that specific varieties hold for those who are familiar with them; and given that multiethnolects constitute a relatively new type of variety, it is likely that the social connotations regarding them are not yet very uniform and not yet very deeply rooted in people's minds. Kircher and Fox (2019) thus posit that attitudes in their original state might be unidimensional, and that status and solidarity only emerge as distinct evaluative dimensions when pervasive and consensual social stereotypes regarding a particular variety are firmly established. However, further research on more multiethnolects, and ideally tracing attitudes towards them longitudinally, is necessary to verify this.

For those varieties that are associated with pervasive and firmly established social stereotypes, previous studies have shown clear evaluative patterns. For instance, when comparing standard and non-standard varieties, research shows that world-wide and cross-culturally, more positive attitudes are held towards

standard varieties than towards non-standard varieties in terms of status (e.g. Giles and Watson 2013; Hundt et al. 2015; McKenzie et al. 2016; Carrie 2017). This is customarily explained by the aforementioned notion of language attitudes as expressions of social conventions and norms, and the fact that standard varieties tend to be spoken by powerful social groups. The predominant pattern found in previous studies regarding attitudes on the solidarity dimension reveals that standard and non-standard language users alike tend to evaluate their own variety more positively than that of any outgroup (Cargile and Giles 1998; Giles and Marlow 2011). This is because 'language binds people into a community of shared understandings and hence identity' (O'Rourke 2011a: 19). This sense of ingroup identity and the aforementioned ingroup favouritism, in combination with pervasive language ideologies which systematically stigmatise and devalue (the majority of) foreign-accented speakers (e.g. Dragojevic et al. 2013) also serve to explain why foreign-accented varieties are usually evaluated less positively than non-foreign-accented varieties in terms of both status and solidarity (e.g. Fuertes et al. 2012; Giles and Watson 2013; Dragojevic and Goatley-Soan 2020). However, not all foreign-accented speakers are denigrated equally, with the extent of the denigration being linked to the stereotypical stigmatisation of the speaker groups (Dragojevic and Goatley-Soan 2020).

Majority and minority (or minoritised) languages in multilingual societies commonly show the same evaluative patterns in terms of status and solidarity as standard and non-standard varieties, respectively – for the same reasons (e.g. Genesee and Holobow 1989; Kircher 2014a; Hill 2015a). However, there are also documented cases where users of minority languages or non-standard varieties have evaluated their own variety more negatively than the majority language or the standard in terms of solidarity (e.g. Lambert et al. 1960; Zipp 2014a). Such cases can be attributed to the fact that in contexts of enduring social stratification, subordinate groups may 'internalize a wider social evaluation of themselves as "inferior" or "second-class", and [that] this consensual inferiority is reproduced as relative self-derogation' (Tajfel and Turner 1986: 11; see also e.g. Romaine 1995).

As these evaluative patterns show, status and solidarity should not be seen as mutually exclusive. Moreover, as explained above, language attitudes can change over time. However, previous research indicates that 'it is easier to change a group's perception of ingroup solidarity than of intergroup status' (Genesee and Holobow 1989: 36) – and consequently, evaluations on the status dimension tend to be more stable than evaluations on the solidarity dimension (e.g. Ryan et al. 1982; Kircher 2014a).

Finally, it should be noted that status and solidarity are assumed to be closely connected to the two main socio-structural determinants of language attitudes, standardisation and vitality (Bradac 1990; see also Ryan et al. 1982). Maximally favourable evaluations on both the status and solidarity dimension are likely to be made of standardised varieties that are also perceived to be high in vitality, while maximally unfavourable evaluations with regard to both status and

solidarity will be made when both the degree of standardisation and vitality are perceived to be low. When the degree of standardisation is low but vitality is perceived to be high, ratings on the status dimension are likely to be low but solidarity ratings should be high; and when the degree of standardisation is high but vitality is perceived to be low, then ratings of status should be high while those of solidarity are likely to be low.

1.6   Investigating Language Attitudes

There are three types of methods by means of which language attitudes can be investigated: the analysis of the societal treatment of language, direct methods of attitude elicitation, and indirect methods of attitude elicitation.

Part 1 of this book deals with *the analysis of the societal treatment of language* – which encompasses '[a]ll techniques which do not involve explicitly asking respondents for their views or reactions' (Ryan et al. 1988: 1068). Prominent examples of this approach include the analysis of how language is discussed in print media (Chapter 2 by Olivia Walsh), on social media (Chapter 3 by Mercedes Durham), and in spoken interactions (Chapter 4 by John Bellamy). The analysis of the societal treatment of language also encompasses ethnographic and observational studies that investigate phenomena such as communication accommodation (Chapter 5 by Jakob R. E. Leimgruber) as well as studies examining how the use of linguistic variables reveals language attitudes (Chapter 6 by James Hawkey). The chapters included here show how analyses of the societal treatment of language can provide rich information on the relative standing of different varieties in different communities.

The chapters in Part 2 of this book focus on *direct methods of attitude elicitation* – that is, those methods which do involve explicitly asking respondents about their language attitudes. This can be done individually, in interviews (Chapter 7 by Petros Karatsareas), or with larger numbers of participants in the form of focus groups (Chapter 8 by Michael Hornsby). Questionnaires (Chapters 9 by Ruth Kircher and Chapter 10 by Lena Zipp) also constitute a direct method of attitude elicitation – and so does the investigation of language attitudes by means of perceptual dialectology studies (Chapter 11 by Chris Montgomery). The chapters in this part of the book demonstrate how direct methods of attitude elicitation can be widely used to gather valuable information regarding language attitudes.

The chapters in Part 3 cover *indirect methods of attitude elicitation* that use different kinds of experimental designs. Studies of this kind are generally assumed to reveal more private reactions than other methods because 'respondents have the attitude object (a language, a variety, or even a feature of a variety) presented to them indirectly, triggering subconscious evaluation of the linguistic element (the attitude object) under the guise of being asked for an evaluation of the speaker, not [their] linguistic production' (Preston 2009: 270). The methods

covered in this part of the book include the classic matched-guise technique (Chapter 12 by Verónica Loureiro-Rodríguez and Elif Fidan Acar), the verbal-guise technique (Chapter 13 by Marko Dragojevic and Sean Goatley-Soan), and the theatre-audience method (Chapter 14 by Tore Kristiansen). Furthermore, there is a chapter that explores experimental methods to elicit language attitudes among children (Chapter 15 by Jasmine DeJesus, Radhika Santhanagopalan, and Katherine Kinzler). The final chapter of this part deals with the implicit association test paradigm and its variants (Chapter 16 by Laura Rosseel). While the terms 'indirect' and 'implicit' are sometimes used synonymously in language attitudes research, Gawronski and De Houwer (2014: 284) specify that, in fact, *implicit* measures are those where 'the to-be-measured psychological attribute influences participants' responses on the task in an automatic fashion' – with *automaticity* being 'a variable which comprises multiple features (unintentionality, resource-independence, uncontrollability as well as unconsciousness) that need not all be present, but can qualify the way in which the outcome of an attitude measure is implicit' (Rosseel and Grondelaers 2019: 2; see also Vari and Tamburelli 2020 as well as Chapter 16, for critical discussions of implicitness).

The chapters in Part 4 cover the most significant *overarching issues in language attitudes research*, offering practical guidance which goes beyond individual methods. They deal with researching language attitudes in multilingual communities (Chapter 17 by Bernadette O'Rourke), in signing communities (Chapter 18 by Annelies Kusters, Maartje De Meulder, and Erin Moriarty), and based on historical data (Chapter 19 by Anna Havinga and Andreas Krogull). Moreover, there are chapters that focus on the use of priming (Chapter 20 by Abby Walker, Katie Drager, and Jennifer Hay) and on mixed-methods approaches in language attitudes research (Chapter 21 by Ruth Kircher and James Hawkey). The topics of the chapters in Part 4 complement those in Parts 1 to 3, and they were selected due to their relevance in a wide variety of contexts around the globe.

Each chapter in Parts 1 to 3 addresses the same key points, and the chapters in Part 4 cover similar points. This ensures that the reader is systematically guided through the data collection and analysis process (Parts 1 to 3) as well as further key aspects of language attitudes research (Part 4). Each chapter in Parts 1 to 3 begins with an introduction to the method; each chapter in Part 4 begins with an introduction to researching language attitudes in the communities that the chapter deals with, based on the kinds of data that the chapter deals with, or using the approaches that the chapter deals with. The chapters in Parts 1 to 3 then include a discussion of the strengths and limitations of the particular method under consideration. All chapters contain subsequent sections on research planning and design, data analysis and interpretation, further important considerations (if applicable), new or emerging trends (if applicable), and case studies based on the authors' own work. These case studies offer access to information about attitudes research regarding a wide range of varieties. Each chapter concludes by providing a list of five publications that serve as useful further readings.

This book brings together canonical and cutting-edge methods for researching language attitudes, and despite being necessarily selective (because including every single method would have gone beyond the scope of a single volume), it can serve as a manual for scholars from communication studies, the social psychology of language, the sociology of language, sociolinguistics, and applied linguistics. (In the field of applied linguists, this book is aimed especially at those whose research deals with language policy and planning, and for whom knowledge of language attitudes is crucial; for those applied linguists whose work investigates related issues such as motivations for language learning, there is already a plethora of available publications.) Hopefully, this book will encourage many readers to conduct language attitudes research, and it will facilitate many fruitful interdisciplinary exchanges – with the aims of providing a more complete understanding of language attitudes in different contexts, enabling advances in attitude theory, and making contributions to language planning that ensures more social equality.

PART 1

Analysis of the Societal Treatment of Language

2 Discourse Analysis of Print Media

Olivia Walsh

2.1 Introduction

This chapter examines how discourse analysis as applied to print media can be used to examine language attitudes. Much research has been done on discourse analysis in the media, including the print media (van Dijk 1985; Fowler 1991; Bell and Garrett 1998; Johnson 2001; Johnson and Ensslin 2007; Johnson and Milani 2010). There has also been extensive research done on discourse analysis and language ideology (Blommaert 1999; Fairclough 2013, 2014), much of which has aimed to examine the links between language and power (see in particular Blommaert 2005). However, discourse analysis has not traditionally been used as a means to examine language attitudes. In fact, until relatively recently, the majority of studies of language attitudes have been associated with quite different types of methodologies, largely due to their development in different research fields with varying focuses of concern. On the whole, language attitudes studies have concentrated on the quantitative measurement of evaluative reactions to language (for more discussion of this point, see Hyrksted and Kalaja 1998; Liebscher and Dailey-O'Cain 2017; Rodgers 2017), while studies of language ideologies have concentrated on qualitative approaches, in particular conversational analysis and discourse analysis, examining not only how language users' beliefs are represented directly in particular texts but also how ideologies lying behind such texts work to inform such beliefs (Fairclough 2013, 2014).

However, as this chapter will show, there is much value to be gained by analysing language attitudes using societal treatments such as discourse analysis – in particular, the attitudes that are (re)produced in the printed press and other print media, given that the printed press is one of 'the social mechanisms through which particular ideas or beliefs about language practices are produced, circulated and/or challenged' (Milani and Johnson 2010: 4). In societal treatment methods, researchers mostly use qualitative analysis to infer attitudes from observed behaviours, document analysis, etcetera (Garrett et al. 2003: 24). Essentially, societal treatment methods take into account the fact that discursive practices are influenced by societal forces that do not have a solely discursive character (Fairclough 1995: 61–62), and they provide insights into the relative status and stereotypical associations of language varieties (Garrett et al. 2003: 14). They therefore acknowledge and make use of the finding that attitudes rely

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on knowledge of the social connotations of particular language varieties (in particular, the perceived status or prestige of the speakers of these varieties) and take into account the two main evaluative dimensions of attitudes, status and solidarity, linked to prestige and group acceptance, respectively (see Chapter 1).

Indeed, analyses of the societal treatment of language, such as discourse-based approaches to language attitudes, have over the past few decades gained wider recognition as methods of research which can usefully complement the experimental paradigms and direct methods traditionally used in sociolinguistics and social psychology of language, and they have been advocated by various scholars (Liebscher and Dailey-O'Cain 2009, 2017: 196; Rodgers 2017: 82; see also Giles and Coupland 1991; Winter 1992; Garrett 2010; Preston 2010). For example, Giles and Coupland (1991: 53) argue for a perspective in which language attitudes 'are assumed to be inferred by means of constructive, interpretive processes drawing upon social actors' reservoirs of contextual and textual knowledge'. Niedzielski and Preston (2003: 301) state that 'the process of reasoning about language in discoursal settings may be more valuable than the elicitation of static, prepackaged folk belief'. Moreover, Liebscher and Dailey-O'Cain (2009: 196) argue that 'discourse-based approaches to language attitudes research should be regarded not merely as a supplement to be tacked on at the end of a far more carefully conceived quantitative study but instead as fundamental forms of language attitude research in and of themselves' (for further discussion, see Liebscher and Dailey-O'Cain 2009).

2.1.1   Language Ideologies and Language Attitudes

As noted in Chapter 1, while language attitudes share many characteristics with language ideologies – for example, neither language attitudes nor language ideologies are about language alone; both tend to link linguistic features to non-linguistic ones – they also differ. Most importantly, perhaps, ideologies consist of sets of beliefs that are shared throughout a community, and their ideological nature is often disguised, because the beliefs become naturalised to the point that they are viewed as common sense (Fairclough 2013: 67; see also Milroy and Milroy 2012: 135). Attitudes, on the other hand, exist not only at the level of communities but also at the *individual* level, and they include not only beliefs but also feelings and behaviours (e.g. Garrett 2010). However, it is important to note that attitudes are very often *influenced* by ideologies, particularly those ideologies that have become normalised to the point that they are viewed as obvious or common sense. For example, because language is an important marker of social identity, language attitudes are strongly related to the social connotations (in particular the status and prestige, or lack thereof) of specific languages or language varieties (Edwards 1982: 21). Many studies that examine language attitudes using discourse analytic approaches also take the view that attitudes and ideologies are related and interacting; that is, that attitudes are shaped by ideologies and vice versa through language use. For example,

Liebscher and Dailey-O'Cain (2017: 3) state that, following Woolard (1992: 235), they view language ideology as 'a mediating link between social structures and forms of talk'. Preston (2010: 4) uses one term, *language regard*, to cover both language attitudes and ideologies, because 'it encompasses identification and positioning in the social as well as geographical space of languages, varieties, and their uses as well as the more specifically evaluative notions sought in language attitude work' (see also Chapter 11).

One specific language/power ideology which is particularly important in any discussion of language attitudes is the *standard language ideology* (SLI). Kircher and Zipp (Chapter 1) note that standardisation is one factor that influences the formation and expression of language attitudes. Standardisation is – at least in the Western language communities and countries in which it has been studied – nearly always accompanied by the SLI, the belief that there is one particular form of a language which is the most 'correct' form or the 'best' form, which is spread via powerful institutions, including the education system, the mass media, and the employment sector (Kroskrity 2000: 26; Lippi-Green 2012: 67). Standard languages act as 'normalised products' (Bourdieu 1991: 46), and the SLI works to assign them a greater degree of legitimacy than non-standard varieties. In fact, standard languages often act as gatekeepers, maintaining hegemonic order by privileging the language varieties of those in positions of power. This can result in the marginalisation of users of those varieties that deviate in some way from the standard (Hawkey and Mooney 2021). In general, research has shown that more positive attitudes are held towards standard varieties than non-standard ones, and this is linked to the association between standard varieties and powerful prestigious social groups (Garrett 2010). In texts, language attitudes can be represented explicitly, through particular language choices or overt language criticism, but also implicitly, through more subtle linguistic choices.

2.1.2 Critical Discourse Analysis

One traditional means of examining language ideologies is by using the framework of Critical Discourse Analysis (CDA), which specifically focuses on how media discourse conveys ideological and political meanings (Herring 2003: 7). The term *discourse* is defined and used in many different ways across the literature. For example, it has been defined simply as 'the use of language in social interaction' (Scollon and Wong Scollon 2004: 2) or as 'a stretch of language in use, of any length and in any mode, which achieves meaning and coherence for those involved' (Cook 2011: 431). However, many scholars see discourse as something more complex. Blommaert (2005: 3), for example, defines it as comprising 'all forms of meaningful semiotic human activity seen in connection with social, cultural, and historical patterns and developments of use'. Discourse, then, is not simply the ways in which people communicate but a broader semiotic activity which is closely connected with – influencing and influenced by – the social context(s) in which it is produced. It is therefore

heavily involved in 'producing and maintaining certain identities and power relations' (Scollon and Wong Scollon 2004: 5). *Discourse analysis* can be defined as 'the use and development of theories and methods which elucidate how this meaning and coherence is achieved' (Scollon and Wong Scollon 2004: 5). In particular, discourse analysis examines spoken or written language in relation to its use in a social context. That is, it examines not only the linguistic features of a language variety or the rules governing the usage of a language variety but also its meaning in context. It involves finding the 'common-sense' beliefs or assumptions that are hidden in discourse (Fairclough 2014: 64), describing these assumptions and relating them to the social situation in which they have arisen.

CDA is one particular form of discourse analysis which aims to 'reveal what kinds of social relations of power are present in texts both explicitly and implicitly' (van Dijk 1993: 249), that is, 'to account for the relationships between discourse and power' (van Dijk 1995: 84). While CDA is used by a broad range of scholars who have very different backgrounds and somewhat different methods, all agree that social theory and linguistic analysis need to be integrated, often examine similar domains/topics, and are explicitly committed to social action (Blommaert 2005: 24). They also generally have a focus on power, in particular, institutionally reproduced power, and see discourse as an instrument of power. Methodologically, CDA is quite diverse, borrowing and adapting concepts from many research fields (Blommaert 2005: 28). As Fairclough et al. (2011: 357) state, CDA might best be viewed as

> a problem-oriented, interdisciplinary research movement, subsuming a variety of approaches, each with different theoretical models, research methods and agenda. What unites them is a shared interest in the semiotic dimensions of power, injustice, abuse and political-economic or cultural change in society.

A CDA approach is therefore seen as particularly useful to examine attitudes that are essentially informed by a language ideology that is intricately related to power relations. As Joseph (1987: 14) notes: 'The interaction of power, language, and reflections on language, inextricably bound up with one another in human history, largely defines language standardization'. The SLI is so embedded in modern Western society that beliefs about it are naturalised to the point that they are viewed as common sense and are rarely questioned. As Paffey (2010: 43) puts it, 'the ideology of standardization in fact *creates* the vision of standard language and acts to make its realization in society a goal of its proponents'. In Section 2.3 an outline is given of some of the techniques used in CDA that are also applicable to studies of language attitudes.

2.1.3   Content-Based Approaches

Most studies taking a content-based approach are qualitative, although some provide some quantitative analysis. For example, Liebscher and

Dailey-O'Cain (2009: 197) state that content-based approaches used for discourse-analysis studies, examining directly expressed language attitudes as they appear within discourse, are often used in addition to – and lend weight to – quantitative analyses. As an example of applying a content-based approach, Liebscher and Dailey-O'Cain (2009: 197–198) discuss a study of language attitudes that was carried out in post-unification Germany (Dailey-O'Cain 1997), which involved both the quantitative method of perceptual dialectology and the content-based analysis of conversational interviews. The content-based analysis focused on a discussion of standard German and low German in a formally East German area, and it supported the findings of the quantitative (perceptual dialectology) analysis that there is more disagreement among eastern Germans than there is among western Germans about where the most 'correct' or standard German is spoken. It also provided information about attitudes that could not be provided by the quantitative analysis alone, for example, the reasons for which participants hold these attitudes. Liebscher and Dailey-O'Cain (2009: 198) argue that such analysis can therefore point researchers towards a fuller interpretation of quantitative data, by providing specifics about attitudes for which statistics can only provide general information (see also Chapters 4 and 21).

Other content-oriented discourse analyses of language attitudes (e.g. Preston 1994; Babcock 2015), focus on examining content through the analysis of argument structure. For example, Preston (1994) uses the argument structure proposed by Schiffrin (1985, 1987, 1990) to analyse discursively constructed folk-linguistic beliefs about (or attitudes towards) language, specifically African American Vernacular English (Rodgers 2017: 88; Babcock 2015: 62). Schiffrin's two types of argument include rhetorical arguments where 'a speaker presents a monologue supporting a disputable position', and oppositional arguments where 'one or more speakers support openly disputed positions' (Schiffrin 1985: 37). Both types of argument can be made up of what Schiffrin (1987: 18–19) terms 'positions', 'dispute', and 'support'. *Positions* are assertions that also include moral claims about the way the world is or should be. Positions can be disputed through opposition to an idea, the stance of the language user, or moral implication – or supported through logic, evidence, or speech acts such as explanation or justification (Babcock 2015: 62; see also Schiffrin 1985, 1987). Babcock (2015) reapplies this argument structure to a new data set of folk linguistic speech samples about African American English gathered as part of broader sociolinguistic open-ended interviews. She also uses several of Schiffrin's (1985) linguistic categories as points of analysis, including the use of coordinating and subordinating conjunctions, intensifiers, and words that imply opposites – which Schiffrin presents as indicators of the discourse properties of rhetorical arguments (Babcock 2015: 63). Her content analysis, while focusing strongly on discourse-level argumentation strategies, therefore also includes some more linguistic strategies.

2.1.4   Turn-Internal Semantic and Pragmatic Approaches

According to Liebscher and Dailey-O'Cain (2009: 198), turn-internal semantic and pragmatic approaches analyse the same sort of data as can be found in content-based approaches, but are employed to examine the specifics of the linguistic features used in individual expressions of these attitudes. That is, they do not only analyse the content of attitudes but also the structure and function of individual words and linguistic categories, such as the concepts of assertions, entailments, presuppositions, and comparison and contrast (Levinson 1983). For example, Preston (2010: 22–23) examines whether 'pragmatic presuppositions' (Levinson 1983: 181–185) may reveal subconscious attitudes in discourse. He gives the example of a discussion of African American English between a Taiwanese fieldworker (C) and an African American friend (D). C asks D 'So, could you tell me a little bit about your dialect?'. This sentence contains two presuppositions: 'your dialect' presupposes the existence of 'dialect(s)' and that 'you' are the speaker of one. D responds with three assertions: (1) 'The world's getting smaller'; (2) 'We're getting less and less dialectal influence' (i.e. there are fewer dialects now than there were in the past); (3) 'I happen not to be from the South'. The first assertion is understood by Preston to be an explanation of why there are fewer dialects. The second assertion that there are fewer dialects is a direct response to C's presupposition that there are such things as dialects. The third assertion, however, while it confirms C's presupposition that dialects exist, shows that for D, they exist only in the South. The use of the verb 'happen' may presuppose 'inadvertence', 'lack of planning', or 'by chance'. D 'happens' to not be from the South because it is only a case of bad luck that C picked on a respondent who was not from the South and could not fulfil his request for dialect information (Preston 2010: 23).

Preston states that this kind of work on discourse reveals not only what language users have said or asserted (the conscious) but also what they have associated, entailed, and presupposed (the subconscious). On its own, the observation of the abovementioned assertions made by D would be similar to content-based discourse analysis, but analysis of the presuppositions bears more fruit, revealing attitudes that cannot be analysed through a straightforward observation of participants' direct statements (Liebscher and Dailey-O'Cain 2009: 198). This sort of analysis, therefore, allows researchers to access a further layer of information that neither a more quantitative approach nor a content-only discourse analysis can convey.

2.1.5   Discursive Construction Approaches

Social constructionism (Potter and Wetherell 1987; Edwards and Potter 1992; Gee 1992) has led to a change in the view of attitudes (amongst other things). Within this paradigm, attitudes are seen as properties of discourse, as social and context-dependent, and/or as evaluative practices. They are used for

different purposes in discourse, such as justification in defence of arguments made by the holder of an attitude, or criticism against those with opposing views. Discourse analysis can therefore be used to investigate how attitudes are constructed by individuals in their talk or writing (Hyrksted and Kalaja 1998: 355).

Hyrksted and Kalaja (1998: 348) base their discourse analysis approach on Potter and Wetherell (1987), which rests on a number of assertions, the most important here being that the same phenomenon (e.g. attitudes, motivation, personality) can be described in various ways, which leads to variation in accounts. The focus of analysis should therefore concentrate on the ways in which language is used in these accounts, to establish whether there is variability or consistency in their form and/or contents, and to formulate hypotheses about their functions and effects. To do so, what are termed *interpretative repertoires* must be identified in the data. These are

> recurrently used systems of terms that characterize and evaluate actions, events or other phenomena. A repertoire [. . .] is constituted through a limited range of terms used in particular stylistic and grammatical constructions. Often a repertoire will be organized around specific metaphors and figures of speech [. . .]. (Potter and Wetherell 1987: 149)

Hyrksted and Kalaja (1998) analyse both the form and content of the attitudes represented in the data set used in a study which aimed to analyse how the attitudes of a group of young Finns towards English was constructed on a particular occasion, that is, in their written responses to a letter-to-the-Editor that argued against the use of English in Finland. They then identify interpretative repertoires by looking for patterns in the data showing either variability or consistency in the form and/or contents of the text (1998: 348). They find a number of negative and positive repertoires, which differ mainly in content rather than in form, and which are used to justify either a negative or positive attitude towards the use of English in Finland (1998: 355). The negative repertoires include, for instance, a segregating repertoire (distinguishing between those who use pure vs. mixed Finnish, or between Finland and the rest of the world) and a realist repertoire (outlining the possible negative consequences caused by mixing Finnish with English, or by the use of English by Finns, i.e. aiming to strengthen the view that the influence of English on Finnish and its users is harmful). The positive repertoires include, amongst others, an empiricist repertoire (emphasising that language development is a universal process of slow but uninterrupted change and is not necessarily negative) and a utilitarian repertoire (aiming to convince the reader of the practical advantages of adopting words from English into Finnish and of knowing English; Hyrksted and Kalaja 1998: 350–352). The biggest difference between the negative and positive repertoires is that the negative ones appeal more to readers' emotions and values, whereas the positive ones appeal to readers' common sense and rational thinking (Hyrksted and Kalaja 1998: 355).

Hyrksted and Kalaja (1998: 356) note that this approach provides new insights into how we understand language attitudes by showing: firstly, that attitudes are

not mental entities to be found in the minds of subjects but rather constructed in discourse; and secondly, that attitudes are not stable but rather variable in nature. However, they do admit that the approach is not without problems. For example, it is far less straightforward than methods such as the matched-guise technique, and only provides a general framework for a qualitative analysis of publicly available records of interaction that provide contexts for arguing for or against varieties of a language or different languages as well as their users (1998: 348), that is, it is quite limited in scope.

2.2   Strengths and Limitations

The print media are an important data source when examining attitudes to language. Firstly, as they have very large target audiences and many text types, they are a potential source of much relevant material. Indeed, the topic of language in general is a prominent one in newspapers, in particular, perceived 'incorrect' language (Moschonas and Spitzmüller 2010: 19; Percy 2014: 200). Secondly, as a form of media discourse, they convey ideological and political meanings (Herring 2003: 7), which are central to CDA, and they reflect as well as influence their readers, conveying not only content but also attitudes (Percy 2014: 191; see also Cotter 2003: 47). Indeed, the print media 'undoubtedly play an important role in the formation and maintenance of attitudes' (Garrett 2010: 629). A further major benefit of using the print media as a data source is the convenience of processing modern newspaper texts. What we still refer to as the 'print' media, in fact, nearly always appears online as well as in physical print. There now exist major databases of newspaper texts in various languages, which make it very easy to search and create both small- and large-scale corpora of metalinguistic texts, which do not require transcription.

CDA techniques are particularly useful for language attitudes studies in the print media. Analysing language attitudes from the point of view of existing power relations and domination provides important context, given that, at least in relation to the speech communities in the Western states that are most often the subject of language attitudes studies, the SLI plays an important role in the creation and maintenance of such attitudes. Taking a CDA approach may allow researchers to pinpoint where and how damaging attitudes may be formed, for example.

A major limitation of CDA, however, is that it generally allows the analysis of only relatively small samples of texts, as it involves such detailed qualitative analysis. It can be difficult to generalise about findings when they are based on such small data sets. Indeed, some scholars argue that there is a need to devise methodologies to allow for the processing of large corpora, and for the use of comparative corpus-based discourse analysis alongside more qualitative approaches (Moschonas and Spitzmüller 2010: 18) Also, in the case of printed

texts, studies tend to be based purely on the text alone, and often do not take into account the processes involved in producing the text, or the reception of the text by different audiences (Fairclough 1995: 81–82; Johnson and Milani 2010: 5); this may limit researchers' understanding of the true effects of such texts. Finally, although CDA analyses may reveal where and how damaging attitudes may be formed, as noted above, it is not clear how to make analyses produced in academic institutions relevant or more widely known outside academia in ordinary life (Fairclough et al. 2011: 373). CDA 'advocates (active) intervention in the social practices it critically investigates' (Blommaert 2005: 25), but does not outline how researchers should actually do this in practice.

2.3   Data Analysis and Interpretation

A CDA approach towards language attitudes needs to examine the notion of authority or legitimacy, how this is expressed in discourse, and the actors upon whom such legitimacy is bestowed. This allows for an examination of the kinds of language attitudes that are expressed that may be linked to the SLI, in particular in the printed press. There are a number of general CDA techniques that can be applied which can reveal meaning or attitudes. This means carrying out various levels of linguistic analysis and then relating this analysis to broader themes and context. That is, CDA involves not just analysing discourse (or texts), it is part of a form of systematic analysis of relations between discourse and other elements of the social process (Fairclough 2013: 10). An examination of attitudes alongside their particular context is often missing from more quantitative studies. However, taking context into account is particularly important in written texts, such as print media texts, where attitudes may often be less directly accessible than they are in spoken discourse.

When carrying out CDA analysis, researchers need to examine their own relationship with a particular discourse. That is, they may need to question whether they hold any 'common-sense', or taken-for-granted, understandings that form part of that discourse. For example, a researcher may simply consider the view that standard language is 'the best' or the 'most legitimate' form to be straightforward and unproblematic, if they have never been led to question this view. Researchers therefore need to ensure that they can take sufficient distance from the material they are examining in order to examine it objectively (Jørgensen and Phillips 2002). To do so, they must not treat their own individual knowledge of the world as objective truth, but instead acknowledge that their knowledge is in fact a product of discourse and is culturally specific. Jørgensen and Phillips (2002: 21) suggest that to try and distance themselves from the material they are examining, researchers should imagine themselves as anthropologists who are exploring a foreign universe of meaning in order to find out what makes sense there.

Jørgensen and Phillips (2002: 81) also suggest that, where possible, researchers should not only analyse texts, but also the means of text production and the text reception. For example, if the texts being used are newspaper articles, researchers might look at the conditions under which these articles are produced, such as the types of processes a text goes through before it is printed and the changes it may undergo as a result. Then audience research might be carried out to find out how readers interpret the texts. They note that very few critical discourse analysts do this (2002: 82), without acknowledging that this may be very difficult in practice, particularly for a researcher with no connections to the news media.

It is always useful, however, to identify what discourses a text may draw on, as noted just above. CDA techniques that allow this can include analysing the vocabulary and grammar (e.g. nominalisation, transitivity, modality) used in particular texts to determine whether they are associated with particular ideologies and express particular attitudes; examining metaphor usage; and analysing the manner in which sentences are formed to determine whether they reveal a particular meaning that would not be present if a different morphosyntactic structure was used (for more detailed examples of focuses of analysis, see Fairclough 2014: 128–153). A further important level of analysis is what is termed *intertextuality*. Put simply, this refers to the fact that all discourses (or texts) draw on earlier events and earlier texts and they cannot be viewed in isolation from these. A particularly pronounced form of intertexuality is '*manifest intertextuality*, whereby texts explicitly draw on other texts, for instance by citing them' (Fairclough 1992: 117; see also Jørgensen and Phillips 2002: 70). It is not necessary to use all of the research methods or techniques available to CDA studies in individual research studies; rather the choice of methods will rest on the aims and scope of the particular study in question. In Section 2.6, a short case study is outlined where a small sample of French language advice columns is analysed in terms of one of the features just outlined, namely their intertextual features, to determine how these are linked to particular language ideologies and the attitudes they point to.

2.4   Research Planning and Design

A broad range of CDA approaches can be used to analyse the vocabulary and grammar of texts to determine what kinds of attitudes they may express, some of which are noted in Section 2.3. Given the breadth of approaches and the extremely broad array of potential data sources across the print media, it is essentially up to the individual researcher to decide upon the most appropriate and relevant approach to take when planning a study using a CDA approach. However, it is useful to bear in mind some general points.

Firstly, the appropriate ethical approval must be gained before beginning any research study, and ethical considerations will vary, depending on the sources

used (Trechter 2017). The researcher must therefore decide what type of data will be most suitable to answer their particular research question, before considering/applying for ethical approval. Nowadays, print media also appear online as well as in physical form, and they may therefore contain additional information, such as below-the-line comments, which will require different ethical considerations than newspaper articles alone.

Secondly, it is important to consider the question of access to particular texts. Many newspaper texts are not available online but only in hard copy or on microfilm, and these may also be restricted to particular libraries. For example, when collecting the corpus of newspaper articles used in the case study in Section 2.6, while some of the newspapers were available online, others were available only in physical copy or on microfilm. The physical copies of *L'Humanité* had been folded to be stored and were in a very poor state of repair when they were unfolded, with the newspaper literally falling apart at the folds. This made it difficult to read the text in places. The only copies of *Carrefour* that were available were stored on microfilm in the Bibliothèque national de France in Paris. There were only three reproduction machines available in the relevant reading room, which often meant a long wait for a machine to become available, on top of an already time-consuming and laborious process of reproducing individual articles for examination. Collecting this material also required several stays in Paris. It proved therefore both temporally and financially costly. Such considerations will naturally affect a researcher's decision about the type of corpus they can realistically collect.

Thirdly, researchers need to think about questions such as the time period they want to cover (e.g. whether they want to examine changes in attitudes over time or focus on one particular point in time), the political leaning of the source(s) they decide to use and the impact this may have on the attitudes displayed in the source (e.g. whether a particular newspaper is known to be right- or left-leaning or more centrist), the geographical distribution of a particular source (e.g. whether a newspaper is distributed across the whole country or is restricted to a particular region), the circulation of the newspaper, its audience, its genre (tabloid vs. broadsheet), and its frequency (daily vs. weekly). Taking such questions into consideration is particularly important for comparative studies, where data are being collected from different sources. For example, if texts relating to two different language or cultural situations are being compared, researchers need to consider whether they are in fact comparable. They need to be broadly similar for useful comparisons to be drawn.

Finally, researchers need to determine how large their sample size needs to be to answer their research question. This is related to the type of source material chosen. Online corpora allow for more quantitative analysis, and also easier analysis of common themes or terms. Larger samples can therefore easily be employed. Printed corpora involve much more laborious analysis, and smaller corpus sizes are generally more appropriate. The choice may also depend on whether the study is diachronic or synchronic. It is often the case that newspaper

articles are digitised only for recent years, for example. Taking the above considerations into account before beginning a study, and making sure that there are robust reasons for the choice of a particular corpus, will allow researchers to avoid the pitfalls that sometimes arise, for example, the lack of comparability of two sources, or the lack of sufficient temporal/financial resources to complete data collection.

2.5   New or Emerging Trends

Emerging trends in areas such as the production and reception of media texts, researchers' understanding of standardisation, and the development and use of large-scale corpora may all have an effect on research towards language attitudes in the printed press. For example, as noted above, the printed press is now almost always duplicated online, which allows readers to interact with material in new ways. Below-the-line comments allow journalists to see responses to their texts, and often include interaction between the commenters themselves. Twitter users also often link to and comment on news stories (see Chapter 3 on content analysis of social media data). This may influence not only what is written, but how it is written and also how it is received. This therefore adds a new context to studies of the attitudes displayed in media language; it may, for example, allow an increased understanding of the reception of particular texts.

Our understanding of SLI and its effects may also change, because current research on standardisation has begun to raise questions as to whether the SLI is weakening or whether traditional standards are being replaced by different, more democratic ones – diffused, for example, through online blogs or social media, as evidenced in the emergence of new sources of authority, such as crowd-sourcing (e.g. *Wiktionary* and the *Urban Dictionary*; see also Ayres-Bennett and Bellamy 2021). This could mean that the links between standardisation processes and exclusion or hegemony are becoming attenuated. Equally, while the SLI often focuses on the written form of language (usually the most revered and strongly safeguarded/preserved aspect of the standard), computer-mediated communication has recently brought quite significant changes to the nature, practice, and domains of writing, which are nowadays generally far more diverse and less standard than in traditionally written texts (Koch and Oesterreicher 1985: 450; Androutsopoulos 2011: 153; Ayres-Bennett and Bellamy 2021). This will have implications for language attitudinal research and should be borne in mind for any critical analyses of language attitudes.

Finally, the creation of large-scale language corpora which include various types of newspaper articles (e.g. Davies 2002) has impacts for the ways in which researchers can examine newspaper texts. The reportage and editorial material included in such corpora represent language that was printed, public, and more or

less informative and influential (Percy 2014: 192). The material in such corpora does not require transcription and allows broad quantitative research that enables the kind of differing discursive patterns and intertextual relations that are of particular interest for metalinguistic analysis to be identified (Moschonas and Spitzmüller 2010: 20). Such studies will enhance researchers' understanding of the means by which attitudes are (re)produced discursively and therefore act as a useful complement to the kinds of qualitative discourse analytical studies outlined above.

2.6   Case Study: Language Attitudes in French Language Advice Columns

This case study analyses a number of articles from French language advice columns, known as *chroniques linguistiques*. These are newspaper articles about language, frequently responding to questions from readers about the validity or legitimacy of particular usages. They are produced by a single author, who generally has some kind of recognised 'language competence' and published regularly in the periodical press (Remysen 2005: 270–271). This case study analyses a sample of these texts using a method from CDA, namely it examines intertextual features in the texts (specifically manifest intertextuality, see Section 2.3) to determine whether this plays a role in the attitudes expressed by the authors, in particular, whether it helps authors to express a prescriptive or a descriptive attitude to usages that cause hesitation to language users (i.e. areas of variable language usage).

A small corpus was created from a sample of texts which includes fifty articles from each of six French language columns, namely those produced by Victor Snell (in *L'Œuvre*, 1920s), Lancelot (*Le Temps*, 1930s), André Thérive (*Carrefour*, 1950s), Marcel Cohen (*Les Étoiles*, 1940s and *L'Humanité*, 1960s), Jacques Cellard (*Le Monde*, 1970s), and Pierre Bourgeade (*Le Figaro Magazine* 1980s), a total of 300 articles spread across the twentieth century (and a corpus of roughly 290,000 words). These articles were analysed qualitatively, and one focus of the analysis aimed to examine the intertextual devices used by the authors to determine how and why such devices are used (see Walsh 2021 for more detail on this and further areas of analysis). Both the type of references authors referred to (e.g. grammars, dictionaries, literature) and the purpose of the individual references were examined.

All of the authors examined refer to dictionaries, grammars and scholarly linguistic works, and literary works. All authors refer to the *Littré* dictionary (1870s) and one or more editions of the *Larousse* (available from the 1860s, but with new editions continually produced to the present day). This in itself is unsurprising, as these two dictionaries are the most well-known by the general public (Matoré 1968: 118). Two authors in particular, however, Snell (1920s) and Lancelot (1930s) make far more references to *Littré* than the later columnists,

and far fewer references to the *Larousse*, although the *Larousse* was as reputable and well-known as the *Littré* at the time. They also make more references to the dictionary of the *Académie française*. The *Larousse* is more democratic in nature than the *Littré* or *Académie* dictionaries, aimed at popularising knowledge and at a broader and less-educated audience (Matoré 1968: 127). The *Académie*, on the other hand, is well-known for its prescriptive (indeed, purist) views, and the *Littré* relies heavily on quotes from classical authors to illustrate the terms in its dictionary. A reliance on these two dictionaries therefore suggests a certain attitude on the part of these two authors, namely a prescriptive attitude that seeks to maintain a language that was seen to have reached its perfection in the seventeenth and eighteenth centuries (Walsh 2016: 23–25). The later authors are more likely to refer to an edition of the *Larousse*, alongside a much broader array of dictionaries than Snell and Lancelot, who refer to a very few favoured works.

Similarly, references to grammars and linguistic works in the corpus have a broad chronological scope from the seventeenth to the twentieth century. Snell (1920s) and Lancelot (1930s) refer on the whole to the work of the French *Remarqueurs*, a group of seventeenth-century grammarians, strongly associated with the prescriptive tradition in French (Ayres-Bennett 2006), whereas most of the later authors (Cohen 1940s/60s, Bourgeade 1980s, and Cellard 1970s) rarely, if ever, refer to these, and only one (Thérive 1950s) refers to them occasionally. Again, they refer to a very broad range of other works, unlike Snell and Lancelot.

A wide range of literary works are also referred to by most of the authors both from the early modern period (16th–18th century) and the modern period (19th–20th century). Here, Snell (1920s), Lancelot (1930s), and Thérive (1950s) are more likely to refer to early modern authors than Cohen (1940s/60s), Cellard (1970s), and Bourgeade (1980s). This may suggest a prescriptivist attitude on the part of Snell and Lancelot, with a preference for material from the seventeenth to eighteenth centuries, and possibly a more descriptive attitude on the part of Cohen, Cellard, and Bourgeade. Thérive appears to fall somewhere in between.

When we look at the purposes for which these references are made, they tend largely to be used either to reinforce an argument (e.g. for or against a particular usage) or to justify a point, or else to serve as an illustration or aid an explanation. On the whole, prescriptive intent correlates with the use of references to reinforce arguments/justify points and descriptive intent correlates with the use of references to serve as an illustration/aid an explanation. Lancelot (1930s) uses references solely to reinforce arguments promoting standard French (*le bon usage*), Cohen (1940s/60s) and Cellard (1970s) use references solely to illustrate or aid explanations, and Snell (1920s), Thérive (1950s), and Bourgeade (1980s) use them for both purposes, albeit to varying degrees (Snell tends more towards a use that reinforces arguments promoting *le bon usage*, Bourgeade and Thérive fall somewhere in between).

This brief analysis has shown that while, in some cases, authors use references to support mainly prescriptive (Snell, Lancelot) or mainly descriptive (Cohen,

Cellard) attitudes towards language, others (Bourgeade, Thérive) do not fall clearly into either camp, but display a mix of descriptive and prescriptive attitudes. It also appears that the purpose for which references are used plays a role in the language attitudes displayed by the authors of the various columns. Where references are used to justify arguments for or against particular usages, they nearly always support a prescriptive view that views one variety of language, and one variety only, as correct. This is the standard variety, as clearly evidenced by the usage by authors of terms such as 'bon usage' when making such arguments. Where references are used to illustrate or aid an explanation, they nearly always support a descriptive view that sees variation in language usage as normal and that is more open to acknowledging language change. However, it is perfectly possible for individual authors to display both attitudes at different times, not only across the corpus, but also within single articles. It must also be noted that, whatever the purpose of the reference and whatever the attitudes it supports, one of the outcomes of its inclusion is nearly always the construction of authority/granting of legitimacy to the author. Knowledge of (and access to) the various works is a form of authority (Wilson 1983); and some of the works function themselves as forms of authority (e.g. the *Littré*, the *Académie* dictionary). This serves to further entrench the SLI; in particular, the notion that it is a privileged form of language that needs 'expert' speakers to show 'ordinary' speakers how it should be used. As noted above, such attitudes can (and regularly do, see Carrie and Drummond n.d. on *accentism*) lead to linguistic discrimination.

This short case study therefore shows that examining the manifest intertextuality in written texts can help us to access the language attitudes displayed by the authors of the texts. It also shows that individual authors can display what are apparently opposing attitudes, depending on the particular context (e.g. the particular language usage in question). This reinforces the arguments made in many of the attitude studies taking a discourse analytic approach that the expression of attitudes is dependent on context.

This chapter has outlined several approaches to the discourse analytical approach of language attitudes. It has concentrated in particular on CDA, showing that applying CDA techniques to examine language attitudes in the printed press is useful, because ideologies such as the SLI play an important role in the formation of language attitudes in general, and in the creation of indexical links between linguistic features or language varieties and broader cultural representations of their users or speakers. Users of non-prestige languages can thus be affected by negative attitudes towards not only their language but also their persons. This is particularly relevant to the printed press, as it is generally the attitudes of users of prestige varieties that are produced or reproduced there, which may then have a disproportionate influence on attitudes more generally. In terms of Fairclough's 'critical' analysis (2013), this is something we may want to not only pay attention to as researchers but also draw attention to more broadly. This means stating an overtly political attitude in one's work, which some

scholars may shy away from. However, as Blommaert (1999: 436) points out, 'taking sides in what is essentially a political debate [. . .] is nothing to shy away from. I even believe it is unavoidable'. Taking a critical approach to the study of language attitudes allows us to question 'taken for granted' ideas about language, for example, that speaking a non-standard variety is an indication of level of education or intelligence, and to contribute towards the rapidly expanding field of research into linguistic prejudice and language discrimination.

Suggested further readings

Blommaert (2005); Fairclough (2013); Fairclough et al. (2011); Johnson and Milani (2010); Paffey (2012)

3 Content Analysis of Social Media

Mercedes Durham

3.1 Introduction

The internet and, with it, social media have brought new ways of examining language attitudes. It is natural that existing methodologies used to study language attitudes need to be modified when applied to new mediums, but it is crucial to understand what needs to be adapted and what can remain as is in order to get the most out of social media data. One must also establish what types of insight are available when examining social media that would be difficult or impossible to obtain otherwise. This chapter outlines how social media data from applications such as Facebook, YouTube, and Twitter can be fruitfully used to study language attitudes. This comparatively recent method in language attitudes research benefits from the immediate accessibility of large amounts of data from a wide range of people. As outlined in this chapter, generally, such data can also be collected quickly and with minimal effort. This is a point the method has in common with attitudes studies using print data (see Chapter 2). At the same time, social media data facilitates the collection of people's spontaneous thoughts, that is, unprompted attitudinal data, which is more characteristic of societal treatment methods drawing on spontaneous speech data (see Chapter 4). While this means that the methodologies using social media data have points in common with both print and speech data, this chapter demonstrates how the study of language and of language attitudes on social media can, however, provide new insights into our understanding of language and language attitudes (e.g. Eisenstein et al. 2014; Grieve et al. 2018).

3.1.1 The Rise and Rise of Social Media

As noted, compared to some of the more established types of language attitudes analysis (e.g. the matched-guise technique, see Chapter 12, or questionnaires, Chapters 9 and 10), the study of language attitudes on social media is relatively new. This is unsurprising given that the wider spread of social media itself, and the social networks that spring from it, date to the start of the twenty-first century. Understanding how social media has become so ubiquitous in our day-to-day life is a first step in grasping how it can be valuable when studying linguistic attitudes.

Figures from the International Telecommunications Union, which is a United Nations (UN) specialised agency overseeing information and communication

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Table 3.1 *Most popular social networks in 2020 (Adapted from Wikipedia 2020)*

	Network name	Date established	Number of users (in millions)	Country of origin
1	Facebook	2004	2,375	United States
2	YouTube	2005	2,000	United States
3	WhatsApp	2009	1,600	United States
4	Facebook Messenger	2011	1,300	United States
5	WeChat	2011	1,112	China
6	Instagram	2010	1,000	United States
7	QQ	1999	823	China
8	QZone	2005	572	China
9	TikTok	2018	500	China
10	Sina Weibo	2009	465	China
11	Twitter	2006	330	United States
12	Reddit	2005	330	United States
13	Baidu Tieba	2003	320	China
14	LinkedIn	2002	310	United States
15	Snapchat	2011	294	United States
16	Pinterest	2009	265	United States
17	Viber	2010	260	Israel
18	Discord	2015	250	United States

technologies, show that the number of internet users per 100 inhabitants has gone from 2 worldwide in 1997 to 54 in 2019 (and 87 per 100 inhabitants in what the UN has classified as developed countries). This means that around 4.1 billion people are now online (ITU 2020).

As the internet grew, so did social media services, which 'enable users to express themselves [and] build relationships' (Obar and Wildman 2015: 745), as well as create and maintain social networks online and offline. There are numerous different social media services, and their reach across different countries and different social groups can vary considerably. Some, such as Facebook and YouTube, are thought to be used by almost all age groups, while others such as Twitter, Instagram, and TikTok are used more by younger age groups (Khoros 2020).

Some applications have existed for nearly twenty years, while others are more recent. Table 3.1 (adapted from Wikipedia) presents the eighteen most popular social networks worldwide. It serves to give a sense of both what types of social media services there are and the date they were first established.

3.1.2   Language Attitudes Research on Social Media

Like the other chapters in Part 1 of this volume, the type of attitudinal research that is possible on social media falls squarely in the category of *societal*

treatment studies (Garrett 2010): Researchers consider how language varieties are discussed, categorised, or stereotyped online by examining what has already been posted rather than by prompting people in some way. In most respects, the methods of analysis used for social media studies are not substantially different from other societal treatments; content analysis or discourse analysis are used to better understand attitudes found on social media, and researchers consider how the varieties under study are discussed with respect to attitude dimensions such as status and solidarity. What is most different is the data collection and initial processing, so this is what this chapter focuses on particularly, as well as providing a brief overview of linguistic research using computer-mediated communication and social media to situate attitudinal research on social media within the field as a whole.

Given the focus on self-expression and, in some cases, self-branding (Page 2012) online, it makes sense that social media is a source of opinions and attitudes, including linguistic ones. People's own linguistic practices can be examined, but also their comments about accents, dialects, and languages. There has been linguistic research on computer-mediated communication since internet use first became widespread (e.g. Herring 2001; Danet and Herring 2003; Georgakopoulou and Spilioti 2015), and the advent of social media services has further increased this type of research. Alongside the research on attitudes that is discussed below, there is a wealth of research examining how language is used on social media more generally. In some cases, it is in terms of the way people use language differently online, but also with respect to what can be uncovered about regional (or other) language use.

Because there are numerous different social media services, this chapter focuses, in the first instance, on presenting those for which the methodology is most different from written and oral analysis methods. Additionally, it concentrates on social media services about which attitudinal research has been published so far, namely Twitter and YouTube. Where possible, this chapter discusses what type of study is theoretically possible across the various social media services, even when there are currently no such studies.

Coming back to types of services and types of data, while it is possible to study language attitudes in emails or on WhatsApp messages (or any type of direct message), the fact that such data could only be obtained with direct permission of the participants and that the number of messages is likely to be fairly restricted means that the methodology for this is not very different from more traditional elicitation methods. Instead, this chapter will focus on the 'big data' side of social media as this is how this method is maximally different from some of the other methods presented in this volume. *Big data* has been defined in different ways (see Laney 2001; Kitchin and McArdle 2016), but the generally agreed-upon characteristics have to do with the volume of data, the velocity at which it can be collected (and that it can be collected in real time), and the variety of it (i.e. the main forms, structured and unstructured, it may take). Researchers can collect millions of pieces of relevant data in minutes and use automated

programmes to analyse it. While the methods of attitudinal research using social media are largely the same as what is used for other linguistic research using big data, the analyses themselves tend to be on a smaller scale. A societal treatment angle of analysis does not lend itself particularly well to large datasets if each entry needs to be manually examined in some way. Although, with time, it is possible to manually examine and code several thousand posts or comments, it is not possible to do this accurately with several million. Nuance and insight into comments is vital for most attitudinal studies using a societal treatment angle. That means that while attitudinal research uses some of the methodologies of big data, the analysis of the data itself remains closer to more small-scale and traditional methods.

Compared to linguistic research on the internet, research on social media apps and services is still relatively new, with studies first appearing in the 2010s (e.g. Page 2012; Bamman et al. 2014; Jones 2015; Pavalanathan and Eisenstein 2015; Grieve et al. 2018). Squires' (2016) edited volume on English in computer-mediated communication deals exclusively with research on social media. Much of this research fits squarely into what is called 'big data' and focuses on Twitter, but some is smaller-scale research and concentrates on YouTube and Facebook.

With respect to attitudinal research on social media, a few key studies should be mentioned here. Cutler (2019: 50) examines comments on YouTube clips of the New York accent and demonstrates that the types of characterisation found in these comments point towards a realignment in how people view the dialect, as many of the features that 'once connoted low status, lack of education, and rudeness, now seem to [. . . connote] a sort of cool gritty urbanity'. Cutler (2016) examines YouTube comments on videos related to several recent films featuring Scottish accents (*Brave*, *How to Train Your Dragon*, and *The Adventures of Tintin*), and demonstrates that the comments echo more widely held attitudes towards the Scottish accent (e.g. its perceived attractiveness). Additionally, she shows that the comments where posters attempt to reproduce the accent also highlight which Scottish features posters are particularly attuned to (e.g. vowel quality differences). Zhao and Liu (2021) examine standard language ideologies towards the local varieties of Putonghua spoken in Ningbo and Shanghai using posts on Weibo sent over eight years.

Unfortunately, much of the research of this type has not been published yet. Indeed some of the earliest work was presented at conferences; for example, Campbell-Kibler and Torelli (2012) focused on attitudes towards Ohio accents on Twitter, while LeFave (2016), again with Twitter, considered New York accents. Other research is still ongoing, for example Wiel's (2018) on attitudes towards Papiamentu. The methodologies discussed in these studies are similar to the case study in Section 3.7 and in some respects provided inspiration for other researchers on the topic. These studies also help pinpoint when this type of research started.

Some studies do not have linguistic attitudes as their main focus when examining social media data but nonetheless encounter and discuss them.

Rymes and Leone-Pizzighella (2018) examined the most viewed Philadelphia Accent Challenge videos and looked both at the narratives created by the video posters and at the metacommentary in the responses to them. King and Wicks (2009) similarly used YouTube comments to examine attitudes towards the Newfoundland dialect in a Nissan commercial (which featured the dialect). Another study in this vein is Wagner (2014), which discusses strategies that can be used to teach language awareness to students by using Pinterest. Wagner explains how she asked students to create pinboards focusing on different regional dialects (e.g. a picture of a T-shirt with *Yinz* on it from Pittsburgh, a list of Michigan pronunciations) and had them discuss their findings together. While her focus is on teaching, this activity demonstrates that it would be possible to use Pinterest to study attitudes towards various accents and dialects by examining what specific features are discussed on existing pinboards.

3.2   Strengths and Limitations

3.2.1   Strengths

For linguistic research in general and attitudinal research specifically, social media allows researchers to rapidly collect large amounts of data; to collect data about specific dialects, regions, or features; and to do quantitative, qualitative, or mixed-methods analysis. The methodologies used also lend themselves to longitudinal research; this allows scholars to track change in attitudes over time more easily than some other types of research. The (relative) ease of data collection also means that scholars can come back to study attitudes at different points in time or at specific points in time, allowing them to observe relevant topics and events as they occur.

The study of linguistic attitudes on social media services has a number of advantages with respect to data collection compared to other methods. One of its main strengths is the fact that data can be collected very quickly and, in many cases, in large quantities. As shown in Table 3.2, the process of data collection can be automated on some services, which means that the researcher can search for all the instances of a particular word or set of words (e.g. 'Boston accent') and extract them at once. Furthermore, it is possible to restrict Twitter searches to geotagged tweets (i.e. where the location of the sender is embedded in the tweet information), which gives researchers a better sense of where specific words are used. Other linguistic research on Twitter offers a good illustration of how much data it is possible to collect and how geotagging can be used: Pulling tweets from the Twitter stream or using a Twitter Firehose (i.e. a process that allows the researcher to pull a selection of every single tweet sent at a specific point in time, see Morstatter et al. 2013 for a description of streams and firehoses), Eisenstein (2015) compiled a corpus of 114 million geotagged tweets from the United States, while Grieve et al. (2019) extracted 180 million geotagged tweets from

Table 3.2 *Social media services and accessibility*

	Public/closed	Searchability	Extractability	Type of study
Facebook personal accounts	Closed			
Facebook DMs	Closed			
WhatsApp	Closed			
Facebook groups	Public	Post-restricted	Manual (possible automation)	Qualitative
Twitter	Public	Fully searchable	Automated	Quantitative/ qualitative
YouTube	Public	Post-restricted	Manual (possible automation)	Qualitative
Reddit/other forums	Public	Post-restricted	Manual	Qualitative
Instagram	Public	Fully searchable	Automated	Qualitative/ quantitative

the United Kingdom. It is worth noting that in situations where millions of tweets are extracted at once, it is not an issue if only the geotagged tweets are kept, even if they represent only 1 per cent of the overall tweets. For attitudinal searches, however, the lower overall frequency of tweets, even if it is in the thousands, means that including only the geotagged tweets would result in too few to conduct a useful analysis, which is why few, if any, attitudinal studies incorporate this method despite the fact that it is frequently used in other linguistic Twitter studies.

Because the data are in the public domain, the researcher is not restricted only to the individuals they can find to collect data from, or to those who written media deems worthy of being included (be it in the forms of journalists, opinion writers, or letter writers); instead, the researcher can access data from potentially anyone who has a computer or a phone with internet access who has decided to interact on the chosen social network about a specific topic. This means that a wider portion of the population can be sampled than otherwise.

Collecting data on social media also allows the researcher to be immediately responsive to relevant news or media items. For example, a researcher can study how people respond to an actor's portrayal of an accent in trailers and as a film comes out, or how people view the accent of a particular politician during a broadcast debate.

3.2.2   Limitations

While underlining the benefits of social media research, it should be noted that, in some cases, the very things that make social media data so valuable for attitudinal research are also what make it more difficult to manage than more

traditional types of data. Most of the studies on language attitudes on social media focus on responses to an original post or specific words, rather than pooling all the data available at a single point, but this can nevertheless yield far more data than it is possible to analyse in a more than cursory way. With data from Twitter and other services where there may be thousands upon thousands of potentially relevant posts, researchers need to restrict their analysis to something more manageable. Some do this by considering only a period of just a few days, others by examining the same date or dates over several months in order to maintain rigour, balance, and impartiality.

Social media data allows researchers to sample a larger population than many other studies, but it can be difficult to establish who the posts belong to. For research involving mainly responses to an event or a post, it is feasible to go into the profile of specific posters and to try and work out their age, gender, or location if this is relevant. However, for studies with several thousand data points this becomes impossible. This means that although an accent or feature of interest can be examined with respect to what people on Twitter or Instagram say about it, it is not possible to provide any meaningful information about where the posters are from (except perhaps in cases where it is in response to a specific television event and the country where it was broadcast can be assumed to be the only or main source of posts). Additionally, as discussed above, different social networks tend to be used by different groups of people, be it in terms of the countries they are from, their age, their gender, or their ethnic background. This means that researchers need to be cautious when extrapolating what the responses they are studying mean either to the wider population or to specific populations.

3.3   Research Planning and Design

This section starts with a few final considerations in the discussion of what social media is and how it is useful for attitudinal research. It then presents the two main methods of data collection used, while Section 3.4 presents the methods of analysis. The first method of data collection (Section 3.3.1) is primarily manual and is used for solely qualitative research, while the second method (Section 3.3.2) is automated and involves data scraping and can be used for both qualitative and quantitative research.

With respect to social media services, it is vital to consider whether material is in the public domain. As noted by Bamman et al. (2014: 139), Twitter is particularly valuable because

> [u]nlike Facebook, the majority of content on Twitter is explicitly public. Unlike blogs, Twitter data is encoded in a single format, facilitating large-scale data collection. Twitter has relatively broad penetration across different ethnicities, genders, and income levels.

Secondly, in the case of material that is freely available, one needs to consider the extent to which one can easily search for specific terms or posters, and how difficult it is to extract any material for analysis from the service. Table 3.2 summarises the various social media services which have or might be studied for linguistic attitudes. The table presents the type of study (qualitative or quantitative) most likely to be possible with each service. The table also signals how easy it is for the researcher to search (fully searchable vs. post-restricted) and extract (manually vs. automatically) the data.

It is worth noting that even in the case of social media services where the material is in the public domain, one may only be able to see posts when logged on. This has some implications in terms of ethics, which will be discussed in Section 3.3.3. The processes and applications that allow researchers to search through the data are discussed in the following.

3.3.1   Manual Data Collection

For small-scale analyses or ones that require a restricted set of data, it is possible to manually collect data from the social network examined. This can be achieved either by taking screenshots or copy-pasting the material which is going to be examined. Cutler's (2016, 2019) research using YouTube to examine comments on videos featuring different accents is done in this way. Generally, this method works for research that is targeted; that is where the main aim is to examine specific threads or posts about language and the comments associated with them or to establish the extent of engagement with a discussion, through the likes, the comments or replies, and, on Twitter, the retweets (i.e. reposting the original message onto one's own timeline for followers to see), for example, to see how it resonates and what that might signify. Another option is to look at hashtags (i.e. posts that include a #): People tend to use these to join trending discussions or associate their posts to a conference or an event (e.g. #LanguageAttitudes2020) or to tag their posts in some way (e.g. #linguadork; see Zappavigna 2015 for a discussion of the origins and use of hashtags). For hashtags or word combinations that are likely to be very infrequent, as may be the case for research on languages other than English, the manual method is suitable to collect all the instances on a given social media service. This method is not substantially different from what is used more generally in some types of linguistic attitudes research and so does not need further discussion.

3.3.2   Automated Data Collection (Scraping)

The manual method becomes too time-consuming for cases where there are very large amounts of data, either because a post triggered a substantial number of responses or where a word combination or hashtag search yields a large number of relevant posts. In cases such as these, it is more practical to use a

data scraper, that is, an application that allows the researcher to immediately extract all the relevant posts to a spreadsheet or some other format that will allow further manipulation and analysis.

Twitter is the social network that the most research has been conducted on regarding linguistic attitudes thus far: Without doubt, this has to do with the quantity and type of data available combined with the relative ease of extraction. Because the scraping of tweets is such an important part of data collection on Twitter, and because it is most different from other methodologies presented in this volume, the method is briefly described, as well as some of the main programmes that can be used for data extraction of this type on Twitter are listed. There are detailed how-to guides for each of the applications or programmes available online, so the purpose here is primarily to make them known to the reader, rather than explain how they function (see also Steinert-Threlkeld 2018 for a discussion how Twitter can be used in Social Science).

Most of the attitudinal research on social media looks at hashtags, keywords or the responses to specific posts or people. On fully open social media services, by searching for specific hashtags or (sets of) keywords (i.e. *#welshaccent* or *Welsh + accent*), it is possible to extract all the recent posts containing those items. The volume of posts can give an initial sense of how often the topic is written about, and by coding the posts (as will be discussed in Section 3.4), the researcher can establish if the attitudes towards an accent or dialect are positive or negative, and what aspects are most often commented on. By searching for responses to specific posts or specific people, researchers can similarly get an inkling of what kind of attitudes people may have towards a language or accent.

The volume of responses possible in some searches means that an automated scraper, which can pull thousands of posts at once and compile them in a way that provides the researcher with the post itself, the poster, and often other relevant information such as the number of followers, or the poster's location, is generally necessary.

In 2020, there are several ways to scrape tweets for analysis. Some require relatively high levels of technological skills, while others are relatively simple. Most are free to use, but there are also paid-for services which can be used to obtain tweets. The latter will not be discussed as they are not generally used for linguistic research. The main scraping methods available now are briefly outlined in Table 3.3.

The scrapers that make use of programming languages to collect tweets are often used for large-scale language analyses where collecting all the tweets over a short or long period of time is one of the aims (e.g. Grieve et al. 2019).

When discussing scraping and Twitter, there is a further consideration: how far back it is possible to collect tweets. All the applications mentioned above rely on the Twitter API (Application Programming Interface), and Twitter limits all searches to the previous seven days. In practice, this means that in cases where

Table 3.3 *Commonly used Twitter scrapers*

	Scraper	Technological expertise required	What can be extracted
Web-based (data collected onto Google spreadsheets)	Hawksey Tags (Hawksey 2020)	minimal	Words, hashtags, specific user's tweets
Stand-alone app	FireAnt (Anthony and Hardaker 2020)	some	Words, hashtags, specific user's tweets
R	rtweet (Kearney 2019), Twitter, streamR and RTwitterAPI (Vogler 2014; Kühne 2019)	experience with R	Firehose, words, hashtags, specific user's tweets
Python	Tweepy (Sistilli n.d.)	experience with Python	Firehose, words, hashtags, specific user's tweets

more historical data are sought, a manual approach may be necessary, although some companies that collect Twitter data may have options to allow you to buy past tweets. However, for ongoing data collection, it is possible to set searches and leave them running indefinitely to collect new instances. Depending on the programme, only tweets posted after a previous search are collected so there is no need to remove duplicates.

3.3.3   Ethics

A final consideration in terms of research planning and design when using social media is tied to the ethics of data collection. In some ways, the ethics of using social media data is less complicated than some other sources as the data is freely and publicly available and, when signing up, many of the social media platforms make it clear that the data may be seen by anyone with an internet connection. The data are often said to fall in the public domain and researchers do not need to (and indeed generally cannot) obtain individual consent.

This means however that the onus is on the researcher to ensure that users' anonymity is maintained particularly in cases where their (negative) attitudes towards languages, accents, dialects, and forms are discussed (see Spilioti and Tagg 2017). Most people posting a throwaway comment on a video or mentioning an accent they just heard would not expect their words to be scrutinised by academics at conferences and in publications. In practice, where possible, some researchers slightly modify posts so that the originals are not as easily recovered; this provides a modicum of privacy to the posters.

3.4   Data Analysis and Interpretation

Studies looking at social media and language attitudes tend to take either a quantitative approach or a more metalinguistic (i.e. discourse or content analysis focused) approach.

While these broad groupings do not involve completely separate types of analyses and the focus on attitudes towards varieties is clear in both, they partly reflect the manual and automated collection methods discussed in Section 3.3. Additionally, the strategies used to extract and analyse these types of analysis are slightly different. To a great extent, both involve quantitative and metalinguistic components, so the difference lies in which of the two components is seen as primary.

For metalinguistic studies, the material collected is for the most part tied to specific videos or posts, which means that the amount of data available is usually less than for the quantitative method, but also that every single relevant post can be extracted and potentially analysed. With this kind of analysis, the purpose is not so much to focus on quantifying what is said, but rather to reflect on the content of the material, by analysing attitudinal evaluations of phonological and lexical variables. Cutler (2019: 38) notes that these kinds of analyses offer insight into how people 'represent, construe and align with' the accents they comment on, as well as shedding light into the role that social media may play in 'shaping and disseminating language attitudes'.

For quantitative studies, keywords or hashtags are generally the starting point and scraping tends to be used to extract the data, although some tweets extracted may be in response to specific events. Some quantitative studies have a more longitudinal approach than the metalinguistic ones, with researchers collecting as much data as they can over a period of time (even if in the end, they may select only some of it to analyse). The data analysis method for this strand of social media studies is slightly different than the studies discussed above, so as well as presenting previous research, this section also discusses how the coding for scraped data is undertaken.

There are two additional considerations for quantitative analysis. First of all, in order to categorise the data and avoid cherry picking for the posts that are the most striking (or the most amusing), but to keep the manual coding manageable, most studies scrape all the available posts but code only a selection of them. Some do this by coding only a week or a month of the data, while others look at posts sent on the same day of the week, or the same date each month over an extended period.

Secondly, when quantifying the posts with respect to their content, it is possible to either take a deductive approach and use pre-existing categories used in language attitudes research (e.g. Zahn and Hopper's 1985 three-way division of dimensions into social attractiveness, superiority, and dynamism) or to take a more inductive approach according to what themes arise from the data (see Chapter 10 for a broader discussion of deductive and inductive approaches). In most cases, although it is possible to use some of the usual evaluative dimensions

found in attitudinal research, it often makes more sense to take a more bottom-up approach to categorisation and respond to what is actually there than what might be expected.

Even when existing categories are employed it should be noted that it is likely some will be much more frequent than others depending on what is most striking to commenters at that point in time. For example, in the Welsh accent study which is discussed in Section 3.7, there were far more posts which mentioned social attractiveness (either viewed positively or negatively) than posts related to things to do with intelligence, solidarity, or other categories. This is not because social attractiveness is necessarily more salient than the other dimensions per se, but that in the Welsh context it appears to be.

3.5   New or Emerging Trends

Some research at the intersection of big data and attitudinal research uses automated sentiment analysis in order to quickly assess hundreds of thousands of posts (Taboada 2016). It would theoretically be possible to do this for linguistic attitudes as well, as it can provide a broad view of what is going on, but no studies have done so thus far. It may be that for the time being the process is not nuanced enough for the type of short posts generally used in linguistic studies examining attitudes. For example, tweets of the type 'Lots of people hate the Welsh accent, but I don't' would be coded as negative rather than positive, meaning the results run the risk of being inaccurate.

Recent attitudinal research beyond linguistic attitudes offers ideas about further potentially useful methodologies to analyse linguistic attitudes on social media. Freire-Vidal and Graells-Garrido (2019) used Twitter to analyse attitudes towards immigration in Chile with the help of some linguistic tools and which could be applied to linguistic attitudes as well. For example, part of their analysis employs LIWC (Linguistic Inquiry and Word Count) to establish patterns in terms of tweets that view immigration as a threat or see it empathetically. This type of analysis might be useful for a linguistic study of attitudes on Twitter.

3.6   Further Important Considerations

The examples given here have to do mainly with varieties of English, but the methodologies lend themselves to research on other languages, of course. One consideration, however, is the proportion of other languages on the internet and on various social media. It is thought that nearly 60 per cent of websites are written in English (W3Techs 2020): Given that, it is not surprising that many studies focus on English. Other languages, for example Welsh (Willis 2020) or French (Magué et al. 2020), have also been researched on social media, even if

not in terms of attitudes, and it stands to reason that the types of data extraction and analyses discussed here are possible in other languages. It is of course possible to look at the attitudes towards various languages in English as well.

3.7   Case Study: Attitudes towards the Welsh English Accent on Twitter

The study discussed here is a partly updated version of Durham (2016). The original research examined the attitudes towards Welsh English on Twitter by collating tweets sent between September 2012 and May 2013 that contained the words *Welsh* and *accent*. Those results are presented alongside a smaller sample of tweets from June 2019 to March 2020. As well as introducing the methodology in general, it will allow the chapter to demonstrate the possibilities of social media for longitudinal research.

Although there are of course several Welsh English accents, in many people's opinions there is a single Welsh accent, so they will be discussed as a single entity. Earlier attitudinal research on the Welsh English accent had found that either the variety was not taken seriously (Giles 1990) or that it was in the middle of the scale of accent judgements both for social attractiveness and prestige (Coupland and Bishop 2007). Several less academic surveys of attractive accents (Dahlgreen 2014) conducted in the 2010s had shown instead that the accent was rated quite highly in terms of attractiveness (or 'sexiness' depending on how the question was phrased), which demonstrates a possible change in attitudes. The linguistic and the popular studies used primarily direct methods of attitude elicitation by asking people what they thought of a range of accents.

In order to assess what the situation was in cases where people were not directly asked about their attitudes, and using Hawksey Tags to extract the data, I collected all the tweets containing the words *Welsh* and *accent* over two roughly nine-month periods. Although the process through which the API collects data changed in 2013, which means that a substantially lower numbers of tweets are scraped after this point (tweets from newer accounts and from accounts with few followers are omitted), the proportions of the various types of tweets over time can be compared to give a sense of whether what is talked about has changed.

In both periods, all the tweets were extracted and then replies and retweets were removed (see Durham 2016 for a discussion of how they function differently). In the first period, the same four days were coded for each month (representing 6,232 tweets), while in the second period, only two days were coded (375 tweets).

The attitudes in the tweets were then assessed in two ways. First of all, the tweets were grouped into five main categories. These included tweets that were positive about the accent (*love*), tweets that were negative about the accent (*hate*), tweets where the comment was explicitly metalinguistic (although of course all the tweets were about language) but not clearly positive or negative,

tweets which were primarily about performing the accent, and finally tweets where the Welsh accent was mentioned alongside other UK accents and not specifically on its own. Following the initial coding, a second round of coding broke the tweets down into more detail based on the themes that were present in the data. For example, a substantial number of the *love* tweets were related to the perceived attractiveness of people with the accent. This second coding allows a more in-depth understanding of the attitudes. Examples 1–5 provide illustrations of each of the five categories.[1]

(1)   Love tweets
         a) Fuck French, the Welsh have the accent of love
         b) Whoever that girl was on the radio, can someone tell her I'd marry her just for her voice. Proper thick Welsh accent, what a dream.
(2)   Hate tweets
         a) How do people dirty talk with a Welsh accent like? I've seen how Welsh twitter tweets I do NOT want to hear that in bed
         b) every UK accent is acceptable minus Welsh accents and that's the facts
(3)   Metalinguistic tweets
         a) My apologies and condolences to anyone who has had to suffer through Downey Jr's Welsh accent in the past 24 hours
         b) rereading howl's moving castle knowing howl has a welsh accent is always so surreal
(4)   Performance tweets
         a) Can't stop talking in a Welsh accent, it's an actual disorder by now
         b) *welsh accent on* 'I'm a fussy bugger I am'
(5)   UK accent tweets
         a) I know they mean the fancy London accent but I'm like 'Welsh is a British accent so you're going to have to specify'
         b) You can't have just an 'Irish', 'Scottish' or 'Welsh' accent. We are countries. There are many variants.

Figure 3.1 provides the breakdown of the five categories across the two periods.

   The rate of metalinguistic comments is far higher in the second period than in the first period. This appears to primarily be due to people commenting on actors' performed Welsh accents in popular films and television (e.g. Robert Downey Jr. in *Dolittle* and Stephen Graham in *White House Farm*). This could be taken to mean that people recognise and categorise the Welsh accent more than they did five years ago, which then allows them to judge whether the accent performed is good or bad, but it may simply be that the attempted accents were so off the mark that people felt compelled to comment on them. It is also possible that the

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1 As in Durham 2016, I have slightly reworded the tweets so that the anonymity of the posters is preserved.
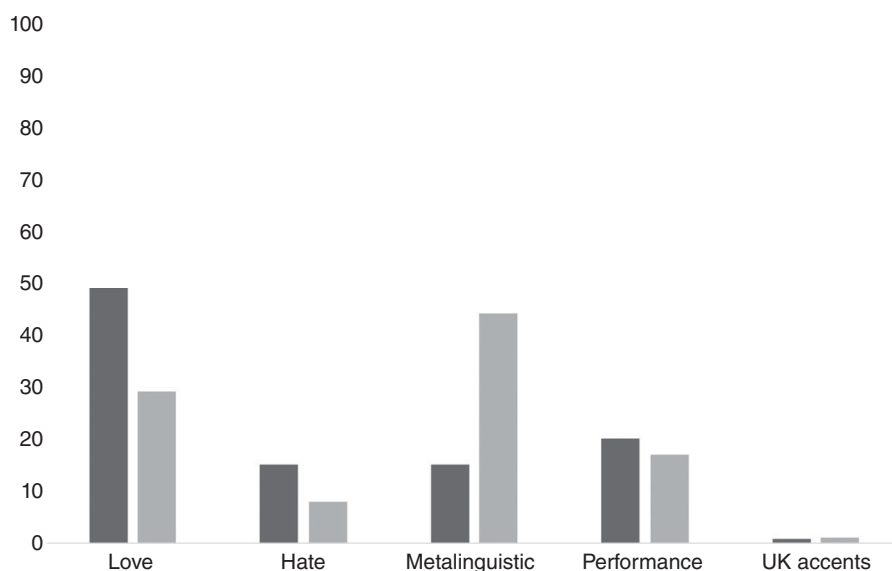
Figure 3.1 *Rates of tweet type by time period*

discrepancy in rates is related to the more restricted dataset used in the more recent time period. Another possibility is that the increase in metalinguistic tweets, and the associated decrease in love and hate tweets, signals that the dialect is objectified less than it was in the past.

With respect to the other categories, the rate of positive feelings towards the Welsh accent remains much higher than the negative rate, while the rate of the performance tweets has not changed substantially. Perceptions of actual Welsh accents (i.e. those not performed by non-Welsh actors) remain overwhelmingly positive. Whereas tweets related to *Gavin and Stacey* (a British television show featuring characters from South East Wales) were numerous in the first period, both in terms of mentions of hearing the accent on it and with respect to 'performances' using catchphrases from the show, in the second period both these types are far less frequent (although some of the tweets in December mention the *Gavin and Stacey* Christmas special). It is striking, however, that in both periods, many of the tweets relate to broadcast media. People's main contact with Welsh accents is through television and film, at least on occasions when they choose to tweet about it.

In terms of the second round of coding, the main themes are the same across both periods. The positive judgements primarily have to do with the attractiveness of the Welsh accent, and that it is funny. Overall, in both periods, most of the comments have to do with social attractiveness (or lack thereof), but the accent is seen as sexy and funny, and to some extent is objectified, but not taken

Wayals

Wayllles

Way-ulls

Wales   Wayelss

Way-uls

Wêls   Wheeeeels

Weeeeeeyels

Figure 3.2 *Respellings of 'Wales' on Twitter*

completely seriously (see Durham 2016 for a more complete discussion of this). This may account for the amount of performance tweets.

These performance tweets fit into two main categories; those where people state that they have been putting on a Welsh accent and those where they orthographically attempt to perform the accent in some way. The latter kind of tweet can give researchers a sense of what is salient in the dialect or at the very least what has become enregistered or commodified. For example, the pronunciation of 'Wales' by many Welsh English speakers is quite distinctive (because of the monophthongisation of /eɪ/ and pre-l schwa insertion) and tweeters have been found to attempt to 'transcribe' this pronunciation in a number of ways (e.g. orthographically lengthening or respelling the first vowel, introducing a <y>, using several <l>s and so on). Figure 3.2 illustrates this with a selection of respellings.

As this chapter and the case study have demonstrated, although short, the posts, tweets, and comments on social media can offer new avenues for research on language attitudes and new insights into how people judge, discuss, and represent languages and dialects. Like print and oral attitudinal research, the focus of attitudinal studies on social media is a greater understanding of how people categorise and stereotype different varieties. However, the methods also allow us to collect larger amounts of data at once and to be immediately responsive to events in a way that can be more difficult with other data, as well as collect attitudes that may not make it into print or even oral sources (e.g. people's tweets on the various party leaders' accents during a broadcast debate in the UK in 2015). Comparing sets of tweets several years apart allows us to gain insight into how attitudes towards and discourses about a variety can change over time. No doubt that in the coming years, more research of this type will be published and will add to our understanding of what can be uncovered about language attitudes using social media.

Suggested further readings

Cutler (2019); Durham (2016); Grieve et al. (2019); Rymes and Leone-Pizzighella (2018); Squires (2016)

4 Discourse Analysis of Spoken Interaction

John Bellamy

4.1 Introduction

Although many well-established approaches to language attitudes have produced valuable and insightful perspectives, criticism has been levelled (Hyrkstedt and Kalaja 1998: 346) at making general assumptions based on the results of conventional techniques which both seek to measure language attitudes without adequately taking account of broader context and also oblige the participants to respond only within the parameters of categories predetermined by the researchers (see also Chapter 2). In response to these potential shortcomings of the predominantly cognitive and positivist approaches to language attitudes, methodologies have been developed based on principles from social constructivist perspectives inspired principally by discursive psychology (Potter and Wetherell 1987; Potter 2003), discourse analysis (Gee 2011: 2), and interactional sociolinguistics (Couper-Kuhlen and Selting 2017: 4–7). This chapter presents a practical implementation of these approaches for the purposes of language attitudes research.

Gumperz (2015) refers to the schemata of *frames* (inspired by Goffman 1974) to contextualise the knowledge and presuppositions to be expected and understood in each section of talk. This configuration facilitates the analysis of processes and strategies such as *positioning*, which describes how speakers shift alignments with other speakers, audiences, and topics throughout the interaction (see also Jaffe 2007: 4). Exploring the positioning of speakers in interaction serves as the main example in this chapter for demonstrating the value of this method which aims to account for contextually relevant 'meaning-making processes and the taken-for-granted, background assumptions that underlie the negotiation of interpretation' (Gumperz 2015: 313). The research outlined here embraces the shift away from a conception of a language attitude as more or less an isolated construct of the mind, largely devoid of context, and instead moves towards the construction of evaluations through discursive practices in interaction, where context is regarded as a significant factor.

Some key studies in this area have been undertaken by Liebscher and Dailey-O'Cain (2009: 196–200; see also Dailey-O'Cain and Liebscher 2011: 93–95), who build on these concepts in their recognition of three levels of discourse-based approaches for analysing language attitudes in interaction: content-based approaches, turn-internal semantic and pragmatic approaches, as well as

interactional discourse-based approaches (see also Chapter 2). This research by Liebscher and Dailey-O'Cain (2009: 201) is particularly insightful because of the additional depth of analysis the levels offer, for example, expanding the scope of observation beyond turn-taking and content analysis so that it includes phenomena such as interruptions, conversational overlap and the broader sociocultural macro-context.

As will become clear throughout this discussion, there are several possible approaches for collecting suitable data for discourse analysis of spoken interaction. It does not rely on one specific data elicitation technique but, as this chapter demonstrates, encompasses various ways of collecting interactional spoken data. Indeed, another innovative method based on spoken interaction has been developed by Soukup (2009: 90), who draws on interactional sociolinguistics to investigate language attitudes in Austria but with an alternative study design involving a phase where informants listen to interactions from a televised political discussion. They are asked to identify perceived shifts from standard language into dialect. By combining these findings with a verbal-guise test, Soukup draws on both sets of data to describe the interactive strategies adopted by the TV show guests as they shift their style of language between standard and dialect for rhetorical and argumentative purposes. Finally, an additional angle for analysing language attitudes in spoken interaction consists of emergent narratives and the valuable insights they offer (König 2014, 2019). By examining the positioning of the interviewee in language-biographical narrative sequences during interviews on the micro level, König (2019: 146–150) establishes that language attitudes are usually recipient-designed and link up with pervasive language ideologies in the broader macrosocial sphere.

4.2   Strengths and Limitations

4.2.1   Strengths

A central tenet of the matched-guise technique (see Chapter 12) and its variants (see Chapters 13 and 14) is that the participants are not fully informed about the research purpose and certain aspects of the process. For instance, they are usually unaware that they are listening to, and rating recordings produced by, the same speaker or set of speakers. Aside from the fact that it is debatable how effective (Soukup 2019: 88) the 'trick' of using the same speakers for multiple recordings is in practice (in an attempt to keep variables as consistent as possible), there is an inherent ethical issue arising from the researcher's efforts to keep the full intentions of the study and its real procedure hidden from participants who are volunteering to give their responses. However, there is no element of 'deception' in arranging a discussion with participants to express openly their views on language and usage. It is immediately clear from the outset what is expected from them and no parts of the study need to be deliberately kept

concealed. Indeed, one of the possible 'ice-breaker' openings at the start of an interview (Chapter 7) or focus group (Chapter 8) could be to ask the participants to describe the language variety under investigation and what it means to them, for example, *What is Multicultural London English? How would you describe this?* Or *What is Ruhr German?* The initial response to this question has much potential to divulge at an early stage their views, collective knowledge, and emotional response (reflective of the affective, cognitive, and conative components of language attitudes), as well as clearly setting the focus of the session.

Such openness can be a considerable practical strength of the approach because it reduces the need to set up a delicate experimental setting which relies on a degree of obscurity with regard to the ultimate aims of the study. In fact, introducing a longitudinal dimension whereby the data collection phase is carried out again at another time with the same participants, possibly sharing all or some of the researcher's previous findings as part of a reflexive activity, can produce valuable data on the nature of language attitudes and how they change (e.g. Ianos et al. 2017 using a questionnaire-based approach). Despite the potential benefits for language attitudes research, there is an absence of qualitative interaction-based language attitude projects which focus on a longitudinal dimension.

As opposed to direct methods of attitude elicitation that employ similar data collection strategies (e.g. interviews or focus groups), discourse analysis of spoken interaction in language attitudes research places much emphasis on context – which is why the method falls clearly within the societal treatment approaches to language attitudes. Taking into account the nuances, influences, and implications of the various degrees of context (e.g. micro–meso–macro levels as in Horner and Bellamy 2016: 321–326) allows for greater recognition of the broader sociocultural, situative, and interactional settings which have become to be regarded as crucial to examining the expressed attitude or attitudes (Tophinke and Ziegler 2006). This emphasis on the larger frame of reference is partly in response to perceived weaknesses in some of the traditional cognitive-oriented language attitudinal methods which have been seen to neglect the pertinent factors that have given rise to these responses towards language in the first place:

> the study of language attitudes seeks to do more than to discover simply what people's attitudes are, and what effects they might be having in terms of behavioural outcomes. A further concern is to understand what it is that determines and defines these attitudes. (Garrett et al. 2003: 13)

So another potential practical benefit of this technique is the opportunities it affords to supplement the elicitation of the language attitudes with crucial contextual information, to observe how the speakers negotiate their views in relation to the other participants and also to have the opportunity as a researcher to follow up anything expressed by the participants which requires further clarification or explanation. A key factor in using spoken interaction for analysis

is to allow the participants sufficient time to provide thorough explanations in response to questions and stimuli, as well as to foster a suitable environment for encouraging spoken exchanges between the participants. Accumulating experience in conducting such fieldwork can help, especially when testing the methodology with an initial pilot study. This usually produces plenty of *rich* data (centring on 'depth' rather than 'breadth'), which is increased further by gathering detailed information on each participant's background and asking probing questions in the interactions.

Whilst analysing varying perceptions of standard German according slight dialectal influences on the spoken standard, Hundt (1992: 4), who mainly used the matched-guise technique, points out the challenges of making the experimental setting as realistic as possible whilst ensuring that as many variables as possible are constant. Striking a suitable balance along this continuum which consists of a sterile, laboratory-style experiment at one extremity and an almost natural, real-world set-up at the other is a common issue in deciding the approach and design of a language attitudes study. The more conversational, open-ended, and flexible interaction-based procedure allows for a more 'natural' environment to some extent and does not treat attitudes as disconnected mental constructs. Instead this approach gives importance to their expression in interaction with others, which reflects the process in which attitudes are usually constructed and communicated. Suggestions for making the environment comfortable and more 'natural' for participants include maintaining a relatively relaxed conversational tone and helping participants to adjust to the presence of the researcher and any recording devices. Liebscher and Dailey-O'Cain (2009: 218) conclude their study of language attitudes in interaction by suggesting that this method allows 'attitudes to be expressed in much more true-to-life situations and allow[s] for the interpretation of those attitudes with respect to that situation'.

Similarly, the aforementioned flexibility in this approach permits much greater scope for the participants to introduce perspectives, considerations, and interpretations which the researcher might not have initially accounted for. In most quantitative-based studies using closed questions, whether it is a semantic differential or a fixed set of multiple choices on a questionnaire, the responses by the participants are constrained by the assumptions, presuppositions, and creativity of the researcher. A freer, conversational-style interaction opens up opportunities for the participants to head in directions during the discussions, narratives, and performances which might not have been originally envisaged by the researcher. This approach embraces the *emergent* nature of qualitative research and enables a project to develop fresh lines of enquiry even as the interactions take place, which might in turn present new ideas that warrant further investigation as part of the broader project. The example case study described in Section 4.6 emerged from similar flexibility with the project development and objectives. The interaction discussed in that section belongs to part of a wider project on *Language attitudes in the Ruhr region* (of Germany) and this component of the larger project, focusing on young people, evolved

dynamically because of their distinct language practices (especially the use of 'street' styles of speaking and their multilingual repertoire) which largely set these discussions apart from others in the project.

Being based on spoken interaction for exploring language attitudes, the general set-up for data collection is relatively straightforward on a practical level since it does not require much special equipment (other than perhaps audio recording devices) and can take place at a mutually convenient location. If the researcher is carrying out fieldwork alone, then usually the most time-consuming aspects (besides transcribing) are recruiting participants and arranging a suitable time and place for each of the recorded sessions. The interactive nature of the discussions also allows for a reflexive dimension and encourages the researcher to engage in reciprocity (Trainor and Ahlgren Bouchard 2013), provided that the researcher is also a participant in the discussion. It is possible that the participants consult the researcher on their views and knowledge of the topics under discussion and, if appropriate, the researcher has the opportunity to 'give something back' as it were by commenting on relevant aspects of the research that have come to light so far. This latter aspect could become part of a post-recording participant–researcher feedback session. A longitudinal study provides even greater scope for reflexivity by building on previous interactions and, whilst observing potential changes in attitudes during the intervening period, by returning to the previous discussions and reconsidering those views in the subsequent interaction.

As mentioned briefly already with reference to Liebscher and Dailey-O'Cain (2009: 199), a discourse analysis of spoken interaction provides the opportunity to add another layer of depth to the analysis of language attitudes by taking into account features 'that are either simplified or not observed when the analyst looks only at individual speaker turns (e.g. laughter, interruptions, pauses, pitch changes, intensity changes, conversational overlap)' (Liebscher and Dailey-O'Cain 2009: 199). The fine-grained level of scrutiny that this approach offers means that details such as the positioning of the interactants, their shifting stances, and their argument structure can all be considered whilst investigating the expression and construction of the language attitudes emerging in the interaction. Some of these latter points will be discussed more thoroughly in Section 4.4.

4.2.2   Limitations

However, the greater depth and attention to detail afforded by this approach comes at the expense of the representativeness and possibilities for statistical analysis offered by quantitative techniques. Unlike studies which make use of printed or digital questionnaires which can be completed by a large number of participants simultaneously, discourse analysis of spoken interaction requires a great deal of attention afforded to an interaction and its relevant context. Of course, using multiple fieldworkers can expedite the data collection

process. Similarly, the approach does not lend itself to the automated data processing of questionnaires and the generally easily categorisable responses of most quantitative-based language attitudes studies. Another key consideration is the time required for transcribing the spoken interaction. Transcription of spoken data can take a tremendous amount of time and resources, especially if carried out by a single researcher. This is especially the case when a close examination of the interaction is necessary and therefore undertaken in accordance with formal transcription conventions (e.g. along the lines of conversation analysis; more on this in Section 4.4). Nuance, detail, and depth are key aspects of this method, although a mixed-methods project could take advantage of combining the strengths of a quantitative language attitudinal technique with the context and comprehensive insights provided by a discourse analysis of spoken interaction. This mixed-methods approach has been accomplished effectively by Soukup 2009, whose aforementioned study incorporated a televised interaction as a stimulus, together with a verbal-guise test and interviews.

4.3   Research Planning and Design

Since context is an integral part of this approach, importance is often placed on gaining knowledge about the background and linguistic biographies of the individual participants. This might be unlike quantitative approaches which aim rather for amassing a larger number of participants with the objective of obtaining a more representative sample and therefore usually gather comparatively fewer details about each participant. In laying out the groundwork for this 'discursive' turn in language attitudes studies, Tophinke and Ziegler (2006: 11) provide an example interview and emphasise the importance of supplying fundamental information about the participants in order to situate the interaction within the macro–meso–micro context framework. So, besides the conventional basic information requested from the participants, such as age and gender, the researchers explain that the participants are both university students; that they study German and medicine, respectively; that they are from West Berlin and they got to know each other on a train journey. The details form part of the macro-context, which can be considered as important for the contextualisation and interpretation of the language attitudes within the broader social and cultural setting (Tophinke and Ziegler 2006: 6). Therefore, it is worth building an informed profile of the participants and their linguistic life trajectories, either during the data collection or during a preparatory stage of the fieldwork. All this information can then be drawn upon in order to examine the attitudes in interaction as they are expressed and negotiated.

Appropriate recruitment strategies include snowball sampling and, in some cases, purposive sampling if a specific demographic category is sought (e.g. young people as in the case study example in Section 4.6). Dailey-O'Cain and Liebscher's (2011: 95) data set consists of '64 audiotaped semi-structured,

conversational interviews [. . .] each with between one and three participants' as part of a project on German-speaking urban areas in Canada. The participants were recruited by promoting the project in a local newspaper and also using the snowball 'friend-of-a-friend' technique. A very important preliminary step for any research involving human participants is obtaining appropriate ethical approval from the respective institution (see Trechter 2017 for further discussion about ethical considerations).

Another key practical consideration is the setting of the observed interaction. It is paramount that the location is suitable in terms of low background noise, is comfortable for the participants, and satisfies the safety criteria of ethics approval. Liebscher and Dailey-O'Cain's (2009) 'Saxony project' comprises conversational interviews, some audio-recorded and some video-recorded, involving both the two researchers and the participants, carried out either in people's homes or in public places. Participants tend to be more at ease if meeting up at a familiar location and possibly by avoiding university buildings which can have associations with more formal academic settings.

Once an opportunity to record a spoken interaction has been organised, there are various techniques to facilitate suitable responses and data for a discourse analysis of spoken interaction. In an investigation into language attitudes towards multilingualism, König (2014: 104–105) conducted thirteen narrative interviews with men and women of Vietnamese origin who were living in Germany (amounting to approximately twenty-two hours of recordings that were then transcribed according to the GAT 2 conventions, see Selting et al. 2009). Similar to Dailey-O'Cain and Liebscher's work (2009, 2011), König implemented concepts from conversation analysis (2014: 65) to examine language attitudes emerging from the interaction in the language biographical interviews. König (2014: 66) focused predominantly on the narrative dimension of the interviews because the micro-analysis of the spoken interactions proved productive for observing experiences of multilingualism and related language attitudes. König (2014: 158) encouraged the interviewees to continue to reveal more and more of their perspectives on language and multilingualism by deliberately avoiding, in her role as interviewer, direct spoken evaluations of what had been expressed. This lack of response by the interviewer had the effect of provoking the interviewees to elaborate on their experiences in more detail by reporting on dialogues and continuing to refine their own evaluations. König (2019: 147–148) adopted a similar approach in a subsequent project based on a 'corpus of qualitative interviews with migration-induced multilinguals from different backgrounds living in Germany'. The study looked at the interviewees' perspectives on the importance of speaking German and their heritage languages with or without a non-native accent. The researcher achieved this by focusing on the concept of *accent* and how the interviewees introduce it as a discourse topic, in addition to analysing how they frame their experiences of having an accent or not, depending on each individual case. Therefore, it is worth developing a repertoire of such strategies to steer the interaction in the direction which

optimally suits the research objectives and to create a situation which encourages the participants to express their views on language and related matters.

When recording the audio of interactions involving more than one participant, it is worth considering the use of multiple audio recorders with lapel microphones. Only having one recorder could lead to confusion at a later date with regard to which voice belongs to which speaker. Not knowing this would be detrimental to carrying out a reasonable analysis of the interaction. Having lapel microphones usually improves the audio clarity of each individual's spoken dialogue and having a separate audio stream for each participant also helps to discern what is being said when they are speaking at the same time. The separate audio streams can later be analysed individually or merged using suitable audio editing software such as Audacity (Audacity Team 2020). Another practical consideration is to begin with a pilot study in an early phase to test ideas and approaches, as well as to iron out potential issues. A pilot study would also be a useful means for becoming familiar with this method if it is new to the researcher. Video recording could be considered, rather than simply audio capture, in order to include gestures, facial expressions and other relevant visual cues used for communication in the observed interaction. It is worth devising an appropriate 'lead-in' to the session which helps to set the topic and frame the general discussion. In addition to the suggestion in Section 4.2.1 of asking participants to describe the language variety (or varieties) under discussion, making reference to a current debate prominent in the media which links up well with the study can help direct the participants towards the main research focus. Since interactions also incorporate power dynamics, another factor worth bearing in mind is to ensure that the researcher–participant relationship is one which places the participants in the role of 'experts'. So the researcher might need to counter initial expectations from the participants that the researcher will already 'know everything' about the topics under discussion.

In summary, key practical design considerations for investigating language attitudes by means of discourse analysis of spoken interaction include devising appropriate participant recruitment strategies, collecting sufficient background information from the participants, structuring the sessions so that they are optimal for encouraging suitable interactions for analysis, fostering a suitable rapport with the participants, clearly framing and guiding the discussion, and taking into consideration the value of a pilot study, appropriate audio equipment, and video recordings.

4.4   Data Analysis and Interpretation

The recordings can be transcribed using one of the many transcription guidelines available, with some popular conventions described by Heritage (2004) and by Selting et al. (2009, for German). There is software available to

assist transcription, one example being the audio-visual annotation tool ELAN (The Language Archive n.d.), in addition to software to facilitate a qualitative analysis, such as the commercial package Nvivo. Depending on the aims and focus of the analysis, one of the decisions regarding the transcription would be how much detail to include, ranging from a minimal transcription to a finer, more elaborate transcription containing many features of spoken expression (e.g. including changes in pitch and volume). Some of the features to look for in the transcribed recordings are described in this section.

A particularly fertile analytical technique for observing the expression and construction of language attitudes in spoken interaction is to examine the discursive practice of positioning amongst the participants (Davies and Harré 1990; Bamberg 1997: 336–337). It is not unusual to observe continual shifts in position depending on how the interaction unfolds. An example of this is when a participant might begin by expressing a negative attitude towards a largely stigmatised spoken feature, although the same participant later realises that they have in fact used the very same stigmatised feature themselves whilst actively disapproving of it. The participant might then begin to justify their use of the feature and modify their initial criticism. Alternatively, another participant in this example interaction might strongly identify with the same stigmatised form because of its importance for local identity, which can then have the effect of bringing about changes in stance amongst the other interactants towards the linguistic feature under discussion who play down their initial negative views of it (Johnstone 2007: 63–64). Stigmatisation and positioning form the basis of an example from Liebscher and Dailey-O'Cain's (2009: 207) when they discuss an exchange about the placement of primary stress on the German word *Salat* 'salad; lettuce'. The different intonations of *Salat* have implications for aligning the speaker with a particularly stigmatised dialect and the described interaction demonstrates how speakers position themselves discursively as 'not a speaker of a stigmatised form'.

Another useful area of analysis is positioning with regard to notions of legitimacy, authenticity, and group alignment in the interaction. König (2019: 146) observes that speakers who are considered to 'have an accent' position themselves in interviews either as 'legitimate', 'authentic' speakers or as 'illegitimate', 'inauthentic' speakers. One example noted by König (2019: 145–146) is the interviewee, EKe, who is himself positioned by others as a 'non-native' or 'inauthentic' speaker of German by concentrating on the prosodic emphasis on *fast* 'almost' in the description that he speaks *fast akzentfrei* 'almost without an accent' which is how EKe reports he is described by others. This corresponds to the first level of positioning (Bamberg 1997: 336–337) in relation to other characters in the reported event. EKe, however, evaluates this 'praise' positively in the interview and presupposes that the interviewer shares this view, i.e. that 'having nearly no discernible accent in German' is favourable, which alludes to the second level of positioning: in relation to the audience. Finally, in the next

part of König's (2019: 146) transcribed example, EKe portrays himself as being able to imitate well the pronunciation of others and positions himself as 'a super-mobile speaker who is capable of changing easily between sociolinguistic spaces', which links up with the third level of positioning: in relation to the speaker themselves. Ultimately, these positioning acts reveal attitudes that the speakers harbour with regard to different spoken varieties. These examples apply elements of conversation analysis to the detailed examination of the unfolding interactions. Modal particles, intonation patterns and the ways dialect words are pronounced (Liebscher and Dailey-O'Cain 2009: 207) can all be useful features to focus on for observing the interactants' positioning. Likewise, König (2019: 146–158) makes use of framing (Goffman 1974; Gumperz 2015), prosody and meanings implied by evaluative words (such as *natürlich* 'of course') in her analysis of the interviews.

Although this chapter is largely using positioning as the example of exploring language attitudes in spoken interaction, another fruitful area of analysis worth mentioning is narratives. König (2014, 2019) incorporates research on narratives (De Fina and Georgakopoulou 2012) to enable further observations of subjective conceptions of identity and how this relates to language practices. Language biographical narratives, comprising mainly small stories emerging in the inter-action, shed light on the speaker's construction of self, experience, and attitudes towards the linguistic varieties under discussion. König (2019: 158) discusses the example of a German of Turkish descent who tells the story of a visit to his uncle's when he proudly spoke some of the Turkish words he had just learnt but became the object of ridicule from 'legitimate' Turkish speakers because of the sound of his German accent. On account of his acceptance of being made fun of, König interprets the small story as demonstrating his acceptance of a standard language ideology and a positive stance towards the concept of 'legitimate' speakers.

Dailey-O'Cain and Liebscher (2011: 96) also draw attention to the usefulness of short illustrative narratives, or small stories, for demonstrating the construc-tion of language attitudes. Rather than forming isolated self-contained segments, the short narratives are interpreted within the broader context of the ongoing interaction as they emerge according to the given moment and situation. After data collection finished, the researchers parsed the conversations searching for sections 'in which attitudes toward German dialects are discursively constructed by speakers' (2009: 201). They make particular use of interactional analysis and are especially interested in 'the conversational context (e.g. where the conversa-tion takes place, where the speakers are from, speakers' level of familiarity with each other), as this can have an impact on the ways in which attitudes are constructed' (2009: 201). The researchers also turn partly to Critical Discourse Analysis (CDA) in order to examine the influence of widespread ideologies and social discourses on the construction of language attitudes. CDA indeed offers further analytical possibilities for exploring language attitudes in spoken inter-action (see also Section 2.1.2 on CDA).

4.5   New or Emerging Trends

In recent times, there has been a well-documented shift (e.g. Androutsopoulos 2011; Shortis 2016) in written practices which, as a consequence of technological developments, has resulted in increasing written representation of informal, spoken communication, for example, in text messaging and social media (see Chapter 3). Androutsopoulos (2011: 153) labels this innovation and change in digital written usage 'the elaboration of vernacular writing'. This has implications for analysing spoken interaction because it opens up the exploration of language attitudes in the conceptually spoken domains (Koch and Oesterreicher 1985: 450) of digital and online communication. Tophinke and Ziegler (2014) have already begun this trend by turning to online blog comments and analysing the social-interactive comments of blogs to examine the language attitudes that are expressed using this digital form of communication. As Tophinke and Ziegler (2014) demonstrate, much of the same analytical devices and strategies (discursive psychology and conversation analysis) can be successfully applied to computer-mediated communication.

4.6   Case Study: Attitudes towards Youth Language in Dortmund

Inspired by recent research taking place in cities predominantly throughout Europe which look closely at emerging varieties in multilingual urban environments (e.g. similar to the studies of young people's language use in Nortier and Svendsen 2015), the case study outlined below was carried out in a neighbourhood of Dortmund, Germany, to observe the linguistic practices of young people at a youth club, as well as to analyse their metalinguistic comments on their own language usage. The young participants lived in a highly diverse multilingual setting and often discussed their language use with reference to youth subcultures, feelings of marginalisation, and acts of non-conformity.

Before the recordings took place, there was a lengthy preparatory phase to ensure the data collection process would run smoothly and optimally. The initial step consisted of arranging access to the youth club, which involved meetings beforehand with the social workers who oversaw the club. After undergoing a background check from the authorities to approve contact with young people under eighteen years old, there was a three-month period of getting to know the young people and their environment by visiting the youth club once a week with the permission and presence of the social workers. Whilst this enabled the researcher and young people to become familiar with one another, it also helped to gain a sense of the youth club setting, to learn about linguistic practices in that environment and to observe the constellations of relationships between the young people who were there. This helped significantly with engaging some of the young

people later when the time came to arrange the recorded spoken interactions (four in total, each consisting of three young people and the researcher).

The interaction below is from one of the groups and consists of 'Leo' aged sixteen, 'Robert' aged seventeen, and 'Michael' aged eighteen (see Example 1). Leo and Robert considered themselves monolingual speakers of German, whereas Michael spoke Greek at home in addition to being a self-identified speaker of German. The example will be analysed with a view to exploring the expression and construction of language attitudes in the spoken interaction, with particular focus on the concept of positioning and the insights it provides. Since the demonstration here is not making use of a fine-grained conversation analysis approach (precisely marking intonation, length of pauses, and so on), the interactions are presented using a minimal transcription format to keep them readable and easily understandable. The English translation below the original German has been produced by the author and is meant to reflect the language of the original as closely as possible rather than render everything into idiomatic English.

[Group #2, 13:31–14:11]

001	MICHAEL:	Sie ähm sie müssen das ma so verstehen, wenn wir zu Hause ähm reden, reden wir ähm mit
002		unseren Eltern eigentlich in einem vernünftigen Deutsch.
003	ROBERT:	Mit Punkt.
004	LEO:	Mit Komma.
005	ROBERT:	[Laughs]
006	MICHAEL:	Mit Punkt, mit Komma . . .
007	LEO:	Mit allen drum und dran.
008	MICHAEL:	Satzaufbau. Und sobald wir die Tür verlassen, und ein Kollegen sehen: Was kommst du?
009	ROBERT:	Das fängt schon an.
010	MICHAEL:	Kommt . . . kommt schon: oh was machen, Bruder? Was geht heute?
011	LEO:	Zum Beispiel so machen . . . kürzen wir auch ab. Wir sagen nicht was machst du? Wir sagen . . .
012	MICHAEL:	Was määhn.
013	LEO:	Was määhn.
014		[General laughter.]
015	LEO:	Was mahen.
016	FIELDW.:	Was määhn.
017	ROBERT:	[Laughs.]
018	LEO:	Zum Beispiel, zum Beispiel: Wir . . . was machst du, wir nehmen das du weg, und sagen einfach
019		nur 'was mahen'.

001	MICHAEL:	You erm have to understand it in this way, when we talk erm at home, we erm actually talk to
002		our parents in sensible German.
003	ROBERT:	With full stops.
004	LEO:	With commas.

005	ROBERT:	[Laughs.]
006	MICHAEL:	With full stops, with commas . . .
007	LEO:	With all these things.
008	MICHAEL:	With the formatting. And as soon as we go out the door and see a colleague: How's it going?
009	ROBERT:	It starts straight away.
010	MICHAEL:	Starts immediately: oh what's up, bro? What's going on today?
011	LEO:	For example, like that . . . we shorten phrases as well. We don't say: what are you up to? We say . . .
012	MICHAEL:	What DOOO [or alternatively, translated less literally: What UUUP].
013	LEO:	What DOOO.
014		[General laughter.]
015	LEO:	What dooo.
016	FIELDW.:	What DOOO.
017	ROBERT:	[Laughs.]
018	LEO:	For example, for example: We . . . What are you up to, we get rid of the 'you' and just say
019		'what do'.

It becomes apparent from this excerpt that the speakers make a clear distinction between the different spoken varieties they are familiar with and the domains that they are appropriate for. The way in which language attitudes are expressed through the interaction can be analysed using Bamberg's (1997) levels of positioning, which were outlined above and exemplified with reference to König's (2019) interview with EKe in Section 4.4. On the first level of positioning, that is, in relation to other characters in the reported event, the young participants distinguish between ways of speaking with their parents and with their friends. Michael's mention in line 2 of *in einem vernünftigen Deutsch* 'in sensible German' prompts responses from both Robert and Leo in line 6 who then describe this as a variety *Mit Punkt, mit Komma* 'with full stops, with commas'. Besides showing agreement amongst the young people about their self-reported language use in this example, the interaction already conveys the association of a more standard-oriented variety with punctuation and writing, which are hallmarks of written, standard language, and its ideological associations of correctness. In the second level of positioning, in relation to the audience, the extract begins with them addressing the audience, explaining the way 'you' have to understand it. This signals a performative dimension to the interaction, indicating that the language attitudes they express are negotiated depending on who is listening and how they want to present themselves. The symbolic meaning of full stops and commas, associated with more formal 'proper' language, serves also as a guide for the audience to frame clearly the distinction they describe between the casual, informal, playful talk with friends outside of the household and 'correct', 'non-street' language at home with parents. Finally, the third level of positioning, namely in relation to the speakers

themselves, describes how they also position themselves in this interaction as skilful speakers who can navigate between the styles belonging to different domains, in this case: home with parents and outside with friends. Their self-described knowledge and awareness of which linguistic resources are appropriate for the various settings underline their understanding that one way of speaking is more polite and norm-oriented, whereas the other style is informal, intentionally non-conformist, and used in a competitive, banter-spirited way.

Drawing again on analytical frameworks explained earlier in the chapter, the rest of the extract from line 8 evokes Liebscher and Dailey-O'Cain's (2009: 207) discussion in Section 4.4 of the placement of primary stress on the German word *Salat* amongst their participants and the implications it has for speaking a stigmatised variety of German. In contrast to the speakers in the aforementioned discussion who distanced themselves from the non-standard pronunciation, the participants in this extract from Dortmund identify strongly with this 'other' way of speaking because of its role as a marker of ingroup identity and belonging. Michael positions himself as an expert in the group's informal way of speaking by instigating the explanation and coming up with the initial examples of street talk, such as *was machen, Bruder* 'What's up, bro?' (line 10). Leo and Robert then follow with *Was määhn* 'What DOOO' (lines 12 and 13), indicating that they can also use these styles and to support Leo's view that their shared way of speaking consists of shortening expressions: *kürzen wir auch ab* 'we shorten phrases as well' (line 11). A crucial insight offered by observing the language attitudes as expressed in their interactions is the constant banter and repartee that gives rise to their slang expressions, providing important context to how the phrases are used and therefore how the interactants view the 'street talk' style that they are describing. Performance and play pervade the entire recorded session. Even in this short example of the back-and-forth between the three young people, the greeting *was machen* has evolved and been reproduced to form *was määhn* and *was mahen*. It illustrates the fluidity of their ingroup style and the heteroglossic nature of their slang which is continually transient and changing. The eagerness to follow up on each other's examples of how they talk outside of the home shows how this informal style establishes their alignment with the youth club group and keeping up with the playful exchange is part of this practice. Knowing the latest slang signals familiarity with the group. Whilst their interaction indicates positive emotional attachment to this way of talking, it also shows an awareness that it is not suitable for some other settings. Throughout other parts of the discussion beyond this example extract, the three participants continue to emphasise their awareness of domain-specific styles and later describe more clearly their perception that their ingroup informal forms of spoken communication are subject to wider social stigmatisation and prejudice. There are moments later on when Leo positions himself as the 'other' to voice the views of people who criticise the young people because they hear them speaking in a way that is often evaluated negatively.

Another benefit from the weekly visits to the youth club over three months in preparation for the recorded interactions was that, by the time the recordings began, it was fairly straightforward to think up relevant questions and topics for discussion based on the behaviour, relationships and linguistic practices observed during the visits. This greatly assisted the subsequent recorded interactions because references made by the young people to ongoing events and trends outside of the focus group could be recognised and followed up by the researcher. The value of contextual information cannot be underestimated for understanding and framing the spoken interaction. Since the recordings took place in a separate, quieter room on the youth club premises, the young people involved were generally at ease and comfortable with the situation. A post-recording feedback chat afforded an opportunity to check on how the participants had found the discussion and to ensure that they were content with the procedure.

Suggested further readings

Couper-Kuhlen and Selting (2017); Davies and Harré (1990); Liebscher and Dailey-O'Cain (2009); Potter and Wetherell (1987); Soukup (2009)

5 Analysis of Communication Accommodation

Jakob R. E. Leimgruber

5.1 Introduction

Language variation is omnipresent. Whenever speakers find themselves talking with someone, they will (consciously or not) adapt their speech to the situation at hand: One may consider, for instance, the various registers employed by the same person when reading a bible passage in church, asking a question to a lecturer in class, conversing with an aunt at a Christmas dinner, or chatting with mates at the pub. The importance of the sociolinguistic context has long been a preoccupation of scholars in the social sciences, with stylistic variation – that is, the choice of certain forms of language (in pronunciation, grammar, vocabulary, etc.) over others, being explained by situational context, conversational participants, and a multitude of other factors (e.g. Hymes 1974: 53–62). The analysis of such accommodative behaviour in speech is a useful tool for the study of language attitudes: In particular, the relationship between affect (feelings) and conation (actual linguistic behaviour, see Chapter 1) can potentially be investigated with this method. While some may categorise the method as largely experimental (e.g. Bourhis' 1984 descriptions of his 'field experiments'), it nonetheless operates primarily with participants who are in their natural environment when subjected to observation. Moreover, studies of communication accommodation can be classified as content analysis of the societal treatment of language because participants are never directly asked about their views and opinions regarding language (see the definition in Chapter 1).

Beginning in the 1970s, research into speech accommodation theory (SAT), and, later, communication accommodation theory (CAT), has concentrated on the human factor in these various contexts. The attitudes of speakers towards their interlocutors (in the example above, the other churchgoers, the lecturer, the aunt, and the mates in the pub) are the primary object of analysis in this approach. The initial incarnation of the theory, as proposed by Giles (1973), was that speakers' language may either converge towards that of their interlocutor(s) or diverge from it (or, thirdly, that speakers maintain their own language without accommodation). The motivation behind accommodation lies in the assumption that the addressee(s) will interpret convergence positively (i.e. as a sign of liking) and divergence negatively (i.e. as a sign of dislike). While SAT was initially formulated as a theory of interpersonal communication, it was very soon expanded into CAT,

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in which intergroup communication (i.e. interaction between speakers from different social identity backgrounds) also came into focus (Gallois and Giles 2015). Therefore, in the words of Gallois and Giles (2015: 160),

> communication accommodation can be defined as the adjustments made in speech and communication (perceived or actual) resulting from attempts to take positive (or negative) account of an interlocutor's behaviour, group memberships, motivation, and needs, in an interpersonal (face-to-face or mediated) encounter, and their impact on the relationship and future encounters with the interlocutor or other members of his or her group.

The predominant way of studying communication accommodation is by means of observational approaches. The studies carried out by Bourhis and his associates in Montreal in 1977 and 1979 (discussed in Bourhis 1984) can serve as an example of such an approach. The aim was to investigate the extent to which Francophones and Anglophones in Quebec tend to converge to – or maintain – either French or English in interaction with the outgroup language, particularly in the context of the then-recent enacting of legislation promoting French in public spaces. The methodological approach in these studies consisted of a trained bilingual research associate ('confederate', in Bourhis' terms) accosting pedestrians in two neighbourhoods, one Francophone and one Anglophone, and asking for directions in French (to half of the subjects) and English (to the other half). Care was taken by the confederate to employ exactly the same intonation, tone, facial expression, and dress style in all encounters, in order to focus entirely on language choice. The responses from the pedestrians showed that while queries in the ingroup language were responded to in the same language (maintenance), the degree of convergence differed: Francophones were more likely to converge to English when addressed in English than Anglophones to French when addressed in French. Subsequent proficiency testing (in the form of self-reports from the subjects) suggested that proficiency in the outgroup language was not a predictor of convergence or maintenance. In other words, convergence or maintenance was a choice rather than a necessity.

Other observational approaches are usually premised on the researcher's prolonged and close observation of the participants, gathering as wide as possible a range of sociolinguistically relevant information. If at all possible, the researcher should attempt to become a part of the social group under investigation, thereby gaining insights into the linguistic practices within that community. If that is not possible, due to obvious differences in age, ethnicity, etcetera, a long-term commitment to work in cooperation with the target group is beneficial. Consider the adolescent ethnographies of Eckert (1989) or Rampton (1991), in which the authors spent considerable time interacting with their participants in an open, honest way, thereby also allowing for accommodative practices that were triggered by the researcher's presence. For purely CAT purposes, however, the approach taken, for example, in Bourhis (1984), as described above, is a more direct and targeted methodology.

Notably, accommodation can operate at various linguistic levels. Multilingual speakers may switch from one language to another, for example, in addressee-based code-switching. The switch may also be between mutually intelligible dialects of the same language. Within monolingual and monodialectal communication, accent and style (including phonology, grammar, and lexis) can be modified to achieve convergence or divergence. Paralinguistic (i.e. non-verbal) elements may be taken into account, too: Tempo, pitch, creaky/breathy voice, laughter, gestures, and body language all combine in the complete communicative act, so that they could also plausibly inform the analysis of the event. The renaming by Giles and his colleagues of SAT[1] to CAT in 1987 was motivated by the added complexity of including such nonverbal elements into the analysis of accommodation. Nevertheless, most work in CAT to this day relies on verbal communication.

Following Gallois and Giles (2015: 163–170), the theory consist of the following main tenets: the sociohistorical context, the interpersonal context, an initial orientation, the accommodative stance, the immediate context, sociolinguistic strategies, and conversational tactics. The *sociohistorical context* largely consists of the societal norms and conventions within which the communicative act takes place. This includes power relations as well as accepted norms of decorum in the sociocultural frame in question: Gallois and Giles give the example of the Hebrew–Arabic tensions in the West Bank and the resulting language choice in an encounter between an Israeli border guard and an Arab resident. The *interpersonal context* goes beyond the societal frame, focusing on the more immediate relationship between participants in the exchange, that is, with individual attitudes trumping group attitudes. In short, one may converge towards the speech of one's counterpart when one is positively disposed towards them, regardless of one's attitudes towards their larger group membership. The *initial orientation* has to do with the goals of the speaker in the interaction: Examples include seeking to converge towards industry jargon during a job interview, or, conversely, diverge from an interlocutor's professional style in order to encourage more precision on a particular topic. The *motives* behind the interaction also play a role: A high-stakes business deal, a routine service encounter or a relaxed conversation with friends will all result in different kinds of accommodative behaviour. The *accommodative stance* is the orientation assumed by default, in which speakers 'adjust [their] behaviour to take account of the other's needs, desires, and behaviour, and to treat the other person more as

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1 In its earliest form, SAT was very much concerned with the sociological motivations behind users' languages, with the basic assumption being that similarity breeds attraction. This was also reflected in the experimental design of many early studies, for example, the matched-guise technique in which different recordings are played to participants who then evaluate the speaker on their sociological traits (e.g. Lambert et al. 1960; Anisfeld et al. 1962; see also Chapter 12). In analysing such data, accommodation on the part of the interlocutor is then recorded post hoc, so that the experimental nature of the encounter remains obscured from the informant until after the data gathering exercise (e.g. Genesee and Bourhis 1988). This comes with a series of problems, however, which this chapter will not address as it would go beyond its scope.

an individual and less as a group member' (Gallois and Giles 2015: 165) – in essence, then, a baseline positive attitude towards the interlocutor. Non-accommodative stances do exist, however. Openly conflictual encounters may draw on 'counter-accommodation' or divergence. More common, however, is over-accommodation: Similar to the sociolinguistic concept of hypercorrection, it results from well-intentioned convergence, overdone to reach levels of negative stereotypes. Examples include foreigner talk (i.e. the over-simplification of one's native language) or elderspeak (i.e. the speech of caretakers towards older persons). Other accommodative stances that can be found are firstly, under-accommodation (in which speakers stress differences in their speech from the mainstream or fail to adapt their communication style to that of their interlocutor; this differs from counter-accommodation in that the latter is a clear case of divergence from the interlocutor motivated by a negative attitude); secondly, exploitative accommodation (accommodation out of self-interested motives); and thirdly, avoidant accommodation (e.g. children accommodating to elders to avoid trouble; Gallois and Giles 2015: 167). The *immediate context* is paramount, and needs no further explanation than the referral to the examples the chapter began with (church vs. classroom vs. Christmas dinner vs. pub). As far as *sociolinguistic strategies* are concerned, Gallois and Giles distinguish *approximation strategies*, which come in the three forms of convergence, divergence, and maintenance, from other kinds of strategies. These include *interpretability strategies*, for instance the choice of an easier topic when talking with small children, the choice of simpler vocabulary and slower speed when talking to non-native speakers, and the repetition and avoidance of technical jargon when teaching an introductory class. *Discourse management strategies* are deployed to attend to the interlocutor's 'need to share in the way topics are chosen [. . .], to have an equitable share of talk time and conversation turns, and to have input into the way the conversation starts and finishes' (2015: 168). Finally, *interpersonal control strategies* mitigate power differentials, for example, in the workplace or with law enforcement officers. *Conversational tactics* are speakers' responses to their interlocutors' behaviour (spoken or otherwise). Any kind of accommodation usually also has an impact on (attitudinal) perceptions and evaluations of the participants in the interaction: Generally, convergence is evaluated positively, non-accommodation negatively.

5.2   Strengths and Limitations

5.2.1   Strengths

A first obvious strength of analysing communication accommodation as a proxy for language attitudes is that the data drawn upon are reflective of actual language use in everyday communicative practice. Observational approaches such as the ones described in Bourhis' aforementioned field studies

and the case study in Section 5.6 are instances where naturally occurring data in the form of spoken communication can be observed and analysed through a CAT lens. In so doing, instances of convergence, maintenance, or divergence can be documented and correlated with social or contextual factors. Moreover, the data gathered in observational studies of communication accommodation are, by their very nature, less likely to be influenced by social desirability bias issues than data collected by means of direct methods of attitude elicitation (see Part 2 of this volume). Other strengths of CAT include its interdisciplinarity and its focus on behaviour (Griffin 2009) as well as its adaptability to various contexts (Soliz and Giles 2014).

5.2.2   Limitations

Several limitations exist, however. For example, referring back to the distinction between behaviourism and mentalism (Chapter 1; see also Chapter 6), it remains uncertain how affect (feelings) and conation (behavioural intentions and actual behaviour) interact. Together with cognition (beliefs), these constitute the tripartite model of language attitudes (see Chapter 1). The analysis of communication accommodation does a lot to explain conation, in that language behaviour (in the form of convergence, divergence, or maintenance) becomes measurable (see Bourhis 1984 above, but also the review in Soliz and Giles 2014). Observational studies of CA, however, do not directly query issues of affect, so that the link between feelings and actual behaviour needs to be addressed by means of research using alternative, indirect methods. The theory does generally posit that convergence is grounded in positive feelings and divergence in negative feelings (Soliz and Giles 2014: 110), but this is interpretative rather than directly measured. Neither is it clear that a particular behaviour cannot itself trigger a particular feeling. The direction of the assumed influence is hard to conclusively prove experimentally.

5.3   Research Planning and Design

The first step in any study is to identify the research question. The research should identify valid questions about language use and accommodative behaviour in a given speech community, always bearing in mind the existing literature on the topic. Once the research questions are asked, a number of hypotheses related to these questions can be formulated. The next step is crucial: finding potential participants. This is where ethical considerations become important. It is certainly true that the mitigation of the observer's paradox is important, that is, the conundrum that researchers aim to find out how people behave 'when they are not being systematically observed; yet we can only obtain this data by systematic observation' (Labov 1972a). This concern should not, however, lead to surreptitious voice recordings. Other mitigating techniques are

needed, for instance the conscious decision to integrate the researcher's presence into the research design and the analysis. An example of this are the efforts Bourhis (1984) invested in his Montreal field studies to ensure that the research associate triggered only a choice of language and nothing more. Institutional ethics approval should be sought at an early stage in the planning phase, as the speed at which applications are processed by such committees can vary.

The aforementioned observer's paradox is critical in many research contexts. The presence of the researcher almost invariably has an effect on informant behaviour, when in fact researchers are interested in how people behave when they are not around. Particular to research in CAT is the tendency of speakers to display convergent accommodation with interlocutors towards whom they are positively disposed. Building a trust-based and positive research and interview environment is crucial in any sociolinguistic study, if only for ethical reasons, and this remains true for CAT-based observational studies. In his New York City study, Labov (1966) also found that a friendly and non-invasive approach to interviews was more likely to elicit speech closer to the vernacular than the more closely monitored speech used, for instance, in wordlist tasks. These concerns, so crucial in sociolinguistic studies, remain important in the case of CAT. The ethical considerations are similar, and the accommodation effects likely too. In the case of a study into the accommodative behaviour of bilingual Montrealers, the same question arises: How can researchers establish a controlled protocol to investigate language choice in a given setting, without themselves having an effect on that interactional setting?

A potential way to reconcile ethical concerns and the necessity to avoid the observer's paradox is the approach taken in the case study described at the end of this chapter. The key is to identify a number of variables that are of interest for the research question, and ignore the rest. Should this result in a low-enough threshold of privacy invasion, one might consider the approach to be ethically unproblematic. As a matter of fact, such an approach does not differ much from that of Labov's (1986) study of rhoticity in New York department stores: There, the researcher took on the role of a customer asking for the location of an item known to him to be located on the fourth floor. The response from the employee ('fourth floor') contained two instances of the sociolinguistic variable under investigation (post-vocalic /r/) in two different positions. The pretence of not having understood the answer the first time round yielded a second data point, this time usually produced more carefully. The researcher then took his leave, and once out of sight, manually took note of the four variants used by the informant. No further identifying data were collected directly from the informants; yet some social factors were inferred from the employees' appearance (e.g. sex and age) and speech (i.e. non-local accent). Such a procedure is inconspicuous, all but removes the observer's paradox, and circumvents privacy concerns. A similar, perhaps even less intrusive approach, was taken in the case study below, which considers language accommodation in service encounters in Montreal cafés. After purchasing a beverage, the researcher sat down at a table

within earshot of the counter where transactions took place, with an opened laptop in front of them (a widespread sight in such cafés). Interactional data of interest were recorded in real time into an Excel spreadsheet, without raising any suspicions. No personal data at all were collected, only the full form of the initial greetings, and the language of subsequent exchanges (and of conversations that incoming groups of customers might have had). In short, the researcher's presence as an observer of these interactions had no bearing on the accommodative strategies used by informants, and only (meta-)linguistic data of direct relevance to the research question were collected.

In sum, detailed planning and preparation for studies of communication accommodation are necessary. When done properly, they can allow for methodologically sound and reproducible studies.

5.4   Data Analysis and Interpretation

The data collected can be qualitative or quantitative in nature. In the case of observational studies of communication accommodation, a common measure is the participants' choice of language in response to a given stimulus. Such data tend to come in pre-determined categories, for instance 'English', 'French', and a catch-all 'other' or 'unclear', which can easily be reduced to a single-letter code in the statistical software (R, SPSS, or, more easily as it is so readily available, MS Excel). Once every datapoint has been recorded in the initial spreadsheet, built-in formulae can be used to compute the number of times a given language was chosen in a given experimental condition (say, in a metro station in a Francophone neighbourhood) or by a given group of participants (say, female participants). Dividing these results by the overall number of responses in that particular setting or group results in the frequency of that language being used under these conditions. Qualitative data have thus been converted to quantitative data that can now be treated with statistical tests in order to compare them with one another. Beyond descriptive statistics such as the mean and standard deviation, more inferential statistical methods such as the chi-square test or ANOVA are good ways of testing the significance of differences between results.

The interpretation of quantitative and qualitative data is the last step before discussing these results in light of previous studies. The interpretation of accommodative behaviour in terms of language attitudes – that is, whether for instance convergence is in fact indicative of a positive attitude towards the interlocutor or their language – remains largely speculative. This uncertainty harks back to the problem pointed out above, namely that the link between conation (linguistic behaviour) and affect (feelings) is one that is hard to prove or disprove empirically. Therefore, researchers should be very cautious when interpreting instances of behaviour as reflections of attitudes. Nevertheless, the study of communication accommodation has, in the past, proven to yield meaningful insights into

linguistic constellations and intergroup relations (e.g. Bourhis 1984; Moïse and Bourhis 1994; Bourhis et al. 2007). Moreover, even more insightful and robust results can be obtained when combining purely observational methods with more direct forms of attitudinal questions.

One such approach is summarised in Bourhis et al. (2007), where the afore-mentioned Montreal fieldwork studies discussed in Bourhis (1984) are described as having featured post-encounter questionnaires that asked participants which language they would have chosen for their response had they been accosted in the other one (e.g., if accosted in French, they were asked how they would have responded to English). This 'hypothetical' convergence was found to be interest-ingly different from the actual accommodation that took place. In the first study from 1991, Francophones underestimated their likelihood to converge towards English, whereas Anglophones overestimated their hypothetical convergence towards French. In the second study, conducted in 1997, neither Francophones nor Anglophones showed any discrepancy in their hypothetical and actual accommodation. Bourhis et al. (2007) interpret this as a reflection of a change in the social climate where, unlike six years earlier, 'such declarations may no longer be seen as being so revealing of treason or loyalty to the language cause in Quebec' (2007: 215). Such an approach, which combines observational studies of actual accommodative behaviour on the one hand with more hypothetical queries of reported behaviour on the other, shines an interesting light on the interaction between affect/cognition and conation, among other things. More information on the advantages and practicalities of combining different meth-odological approaches can be found in Chapter 21.

5.5   New or Emerging Trends

Whereas communication across age groups, particularly with the elderly, has been a focus of interest since the early days of SAT, several recent studies in the CAT framework have been concerned with the healthcare sector (Chevalier et al. 2017; Hesson and Pichler 2018; Le 2018). The putative power imbalance between providers and recipients of healthcare is a prime motivation for such research, as is the clinical interest in ensuring efficacious outcomes of communication. Likewise, the in-person approach taken by early CA fieldwork such as Bourhis' (1984) studies has been fruitfully complemented with advances in technology, for instance in the form of high-quality audio recordings that can then be subjected to fine-grained computer-assisted phonetic analysis to result in studies of minute phonetic variation in discourse, analysed through the prism of communication accommodation: Longitudinal studies sampling speaker pronun-ciations at regular intervals (Pardo et al. 2012) are as promising as those carried out using highly controlled experimental protocols in a laboratory setting (Gijssels et al. 2016; Lee et al. 2018). Furthermore, online or electronic commu-nication provides a rich arena in which to study issues of attitudes,

accommodation, and language use, thus complementing observational approaches to CA by allowing researchers to directly access interactions without the conundrum of the observer's paradox. While Walther (2007), for instance, more generally considers accommodative behaviour in computer-mediated communication, Pérez Sabater (2017) discusses accommodation across social categories such as gender and cultural group, Pitts (2017) discusses international students' acculturative attitude on Facebook, whereas Muir et al. (2017) discuss whether the power differential thought to be influential in CAT still holds in low-context online communication settings.

5.6   Case Study: Language Attitudes in Montreal

The study discussed in this section builds on the results I presented in Leimgruber (2019).[2] The research question is rather straightforward: In a functionally (but not officially) bilingual city like Montreal, what kinds of accommodation are used by participants in service encounters, specifically in terms of language choice? The motivation for this research question is as follows: Montreal, the largest city of the Canadian province of Quebec – where almost half of the province's population of 8.5 m live – exists within a complex language political context. The country of Canada is officially bilingual, the province of Quebec is officially monolingual in French, and the city of Montreal is officially monolingual in French, too. However, in terms of the languages actually spoken by the population, Montreal has higher rates of bilingualism (57% of residents reported knowledge of both French and English in the 2016 census) than the province of Quebec (44%) and Canada (18%). Like any other major conurbation worldwide, the city also boasts a number of speakers whose mother tongues are a range of other, non-official languages (51% in 2011; see also e.g. Pagé and Lamarre 2010; Kircher 2014b). The city as a whole, therefore, can be characterised as functionally – albeit not officially – bilingual in French and English. The interaction between the two languages in Montreal (and in Quebec as a whole) has a long history and has been described in much detail (for an overview of the literature, see Leimgruber 2019). The legal provisions of the Charter of the French Language, passed in 1977, are wide-ranging and introduced a number of language rights – including the right to conduct business in French, the right to education in French, and the right to be served in French (see Leimgruber 2019: 53–57 for a breakdown of the Charter's provisions). Nothing in the law actually prohibits the use of other languages, but customers have an explicit right to be served in French, and employees have a right to work in French. These provisions of the Charter are enforced by the *Office québécois de la langue française*.

2 Large parts of this section are taken verbatim from Section 5.4 in Leimgruber (2019: 163–170).

Not regulated by law is the way in which customers are greeted upon entering a shop or other business. A traditional greeting offered in Montreal is the bilingual 'bonjour, hi', which is a tribute to the two main languages in the city, while at the same time respecting the official hierarchy: first French, the provincial official language; then English, the other official language of the country. This greeting has become something of a marker of Montreal identity (Sedivy 2012). Conversely, it also became the focus of political and public attention in 2014, when the minister in charge of language policy commented that the use of the greeting needed to be curbed as it signals an 'unacceptable slide [. . .] into institutional multilingualism' (Scott 2014). Subsequent discussions in the press (e.g. Bock-Côté 2014; Wilson 2014) further brought the greeting into the public consciousness, without doing anything, one assumes, to stem its use. It remains a clever signalling device offering service in both languages, without committing to one or the other, and all the while respecting the official French-first hierarchy. When presented with such a greeting, the question of interest is, of course, which language the customer then chooses when returning the greeting.

In order to address the aforementioned question of whether customers and/or service staff accommodate in terms of language choice, an observational study of communication accommodation was carried out in 2013–2014 in six cafés of an international chain located in different neighbourhoods on the island of Montreal. These neighbourhoods were chosen due to their linguistic composition as per the latest census: They were predominantly Francophone (Rosemont), Anglophone (Dollard-Des Ormeaux, Westmount), allophone[3] (Saint-Laurent, Mile-End), and bi-/multilingual (Ville-Marie in downtown). Service encounters were observed between counter staff and customers in the course of one hour on five different weekdays in each of the six locations, for a total of thirty hours of data collection yielding data on 1,094 interactions. The data I recorded (in text form in an Excel sheet) included the time and location of the interaction, the greeting offered by staff, the response given by the customer, the language of the order, and the language of one subsequent turn. I also took note of the language used by groups of customers who were already speaking when they entered the café.

Upon completion of data collection, analysis began with the help of simple quantitative tools in Excel: The spreadsheet software provides formulae to count, for example, instances of a particular language code (the COUNTIF function) in one or several settings (the COUNTIFS function). Summing the total count of English greetings and dividing them by the overall number of greetings results in the frequency of English-language greetings. All of these functions are built into the software and rather straightforward in their use. The data reveal that, as far as the initial greetings are concerned, the provincial language policy was working, in the sense that French was the language that appeared most often,

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3 In Canada, the term *allophone* refers to speakers of languages other than English or French. Speakers of indigenous languages are usually also excluded from the definition of this term.

including in neighbourhoods where it is a minority home language. Additionally, the famous bilingual greeting of 'bonjour, hi' was often used, sometimes reversed to 'hi, bonjour'. Regional patterns could also be observed.

It is the customer response to the initial greeting, the 'counter-greeting' (Ginzburg 2012), which is most interesting, because it is less immediately conditioned by (governmental or company) language policy and more by personal preference or, crucially, reaction to the initial greeting. Overall, counter-greetings to bilingual greetings were slightly more often in English (56%) than in French (43%); yet the order of the bilingual greeting ('bonjour, hi' vs. 'hi, bonjour') did not have an effect on the counter-greeting. This may point to the bilingual greeting in itself being enough of a signal marking willingness to accommodate towards English, an 'offer' taken up by the majority to whom it is offered.

The process of language choice in these settings is conditioned by a number of variables. They include the participants' own 'mother tongue' or first language, the level of proficiency in the two official languages, and the degree of bi- or multilingualism they possess. Most straightforward is the geographical variable: Each café was situated in a physical reality, therefore in a (physical and human) geographical landscape that can be defined at various levels of scale, such as a block on a given street, a particular neighbourhood, a certain administrative subdivision. Census data give reasonably reliable information on language-related indicators that give a picture of resident language use. It is thus possible to describe the immediate surroundings of a given location in terms of the resident population's mother tongues, first official language spoken, and home language. Every café was, therefore, situated in a geographic space that exhibited a pre-existing sociolinguistic pattern. Of higher relevance in the context of this chapter, but least easily ascertainable, are the personal motivations of those who partake in the exchange: Attitudinal data can help to inform an understanding of this variable, but since, in the present case, the two populations are different, any correlation should be viewed with healthy suspicion. Clearly, the most easily accessed component of such attitudes is the conative element, in the form of the actual linguistic behaviour exhibited by the interactants. Such behavioural data allow for interpretative assessment of the cognitive and affective components of the attitude object – but these links, as explained above, cannot be taken for granted without supplementary direct access to speakers' attitudes.

The variables under investigation certainly played a role in pre-conditioning the service interaction itself. Actual language use in the course of the encounter had a more readily observable and immediate effect, however. Thus, the language spoken by a group of customers entering the café had an interesting effect on the language of the greeting offered by staff: While in the case of English-speaking customer groups there was a variety of choices (ten greetings in English, eight bilingual, seven French), in the case of French-speaking customer groups there were only French (eighteen) and bilingual (ten) greetings. The place of French as the *langue commune* of Quebec society would here seem rather well

Table 5.1 *Language accommodation process in Montreal cafés (adapted from Table 5.10 in Leimgruber 2019: 168)*

Pre-encounter	Greeting	Counter-greeting
English-using group: 27	English: 10	English: 10 French: 2
	French: 7	English: 10 French: 5
	Bilingual: 8	English: 8 French: 0
French-using group: 28	English: 0	English: 0 French: 0
	French: 18	English: 1 French: 16
	Bilingual: 10	English: 0 French: 10
Non-speaking: 1,006	English: 60	English: 55 French: 4
	French: 383	English: 81 French: 290
	Bilingual: 511	English: 287 French: 217

established, if only in the absence of the only serious challenger to the language, namely the 'other' federal official language English. Table 5.1 gives an overview of the language selection process in the course of the interaction, taking into account this initial variable of the language used by groups of customers in the 'pre-encounter' phase, that is, the language spoken by customers entering the café in groups. Customers entering without speaking (as single persons or non-speaking groups, responsible for 1,006 interactions here) had little influence on the language they were greeted in, with other variables (personal preference, attitudes, location, language policy, etc.) accounting for the variation. Location, in particular, showed interesting patterns: Expectedly, in Dollard-Des Ormeaux (largely Anglophone) more bilingual and English greetings were used, whereas in Rosemont (Francophone) and Mile-End (bilingual), more French was used. The majority language in the neighbourhood surrounding the café in question, therefore, had an impact on language choices when greeting customers who had failed to provide pre-encounter clues as to their own preference of language – an absence of preference-signalling also reflected in the vastly higher number of bilingual greetings in this instance (511 bilingual vs. 443 language-specific greetings).

In most instances, once a greeting had been uttered, the counter-greeting typically aligned with the language of the greeting, with the obvious exception of the bilingual greetings, which, predictably, showed an almost equal share of

counter-greetings in either language. The data in Table 5.1 show most of the explicit accommodation in the course of the interaction. Subsequent switches *after* the counter-greeting were very rarely observed: In eleven cases, an English counter-greeting was followed by a French order, and in twelve cases, a French counter-greeting was followed by an English order. Subsequent requests by staff (termed 'follow-ups', such as 'anything else?', 'what size?', etc.) saw switches in seventeen instances, ten times from a French order to an English follow-up and seven times from an English order to a French follow-up.

It is worth noting that such highly heterogeneous interactions, with more persistent switching back and forth between the two languages, were confined to the Downtown location: The café, situated in the heart of the city's financial district, in an underground shopping centre linked to a métro station, was not in a residential neighbourhood that would see a reflection of its population in the local café, but rather a place of work, shopping, and leisure, to which people commute from various corners of the city and beyond. The highly eclectic group of customers resulting from this mix, which comes hand in hand with a similarly eclectic collection of language proficiencies in and attitudes towards English, French, and a series of other languages, necessitates a high degree of flexibility and adaptability on the part of service staff as well as customers.

Despite the aforementioned issues regarding the difficulty of inferring language attitudes from the analysis of communication accommodation, this case study has nevertheless illustrated how such fieldwork can be conducted. The observation of actual linguistic behaviour can provide insights into attitudinal aspects that cannot be gleaned by means of other methods.

Suggested further readings

Chakrani (2015); Gallois and Giles (2015); Garrett (2010); Giles (2016); Imamura et al. (2011)

6 Variable Analysis

James Hawkey

6.1   Introduction

Since the earliest language attitudes studies, researchers have treated attitudes as dependent variables for analysis in conjunction with independent social variables such as age, sex, social class, or mother tongue. For example, the respondent sample for the original matched-guise test (Lambert et al. 1960) was stratified by participant sex and mother tongue, and Fishman's (1969) commitment measure included questionnaire data to ascertain participant demographic characteristics. However, this chapter explores the advantages of using language attitudes as *independent* factors in the analysis of *dependent* linguistic variables. By switching the role of language attitudes from that of dependent to independent variables in sociolinguistic analysis, we can learn more about the links between attitudes and behaviour, a central concern of social psychologists who have long integrated a conative/behavioural component into the concept of attitude (e.g. Rosenberg and Hovland 1960, whose model includes conation alongside affect and cognition as the three components of language attitudes; see also Chapter 1). Indeed, Gass and Seiter (1999: 41) go so far as to say that 'there wouldn't be much point in studying attitudes if they were not, by and large, predictive of behaviour'. It is therefore important to examine the extent to which language attitudes function as predictors of linguistic behaviour – and the behaviour under examination here is speaker production of language variation. Indeed, the main focus of this chapter is the examination of language variation and its role in deepening researchers' understanding of language attitudes. As such, the method discussed here can be categorised as content analysis of the societal treatment of language since, at the stage where language variation is elicited, participants are not directly asked about their views or opinions regarding language. In this introduction and background to the method, an overview of variationist sociolinguistics is presented, and then the role played by speaker attitudes in the development of the discipline is highlighted. The information in this overview will be very familiar to (variationist) sociolinguists, but such detail is nevertheless important for researchers from other disciplines in the social and behavioural sciences. Then, having discussed how attitudes inform variationist approaches to data, the other side of the coin will be examined to reveal how variable analysis can deepen knowledge of language attitudes. With this information taken into consideration, the details of

the specific research protocol under investigation in this chapter are finally presented and discussed.

Variationist sociolinguistics seeks to understand the social meaning underpinning linguistic practice by establishing correlations between linguistic and social variables. The discipline was born out of the work of William Labov on Martha's Vineyard (1963) and in New York City (1966). These early studies offered insight into how broad macrosociological categories (chiefly age, sex, and social class) and linguistic constraints (such as phonetic and phonological environment) affected the distribution of variables thought to be in free variation. These findings led to the development of the 'variable rule' (Labov 1969; Sankoff and Labov 1979), which broadly dictates that the selection of a given variant is contingent on linguistic and extra-linguistic factors, and that statistical models can take these into account in order to accurately predict the probability of usage of said variant. In subsequent decades, the variationist enterprise has developed, and Eckert (2012) identifies three 'waves of analytic practice', with later waves making greater use of ethnographic methods and social theory in order to explore relevant analytical categories. Therefore, while first-wave variationist approaches chiefly draw on the explanatory potential of age, sex, and social class alongside linguistic categories, second-wave work is grounded in ethnography that provides an emic perspective on the significance of such broad social groupings in the specific research context. Most recently, third-wave studies, rather than viewing the social meaning conveyed by variation as incidental, interpret variation as a semiotic device. As such, current work focuses on the ways in which speakers are able to, consciously or unconsciously, harness the communicative power of variation, as they 'make social-semiotic moves, reinterpreting variables and combining and recombining them in a continual process of bricolage' (Eckert 2012: 94).[1] In order to interpret variation, the locus of study has therefore shifted through time from the purely macro, societal level in early work, towards the inclusion of individual speaker perceptions. More recent studies therefore draw on speaker beliefs and ideologies in order to understand how individuals are engaging in these processes of bricolage, and so speaker belief systems somehow need to be brought into variationist analyses. Language attitude measurements are able to offer valuable insight in this regard – not only are they indicative of speaker feelings about language varieties, but they are also quantifiable and can be included in rigorous statistical models. This chapter presents one way in which language attitudes can be included in the variable rule alongside more classic first-wave macrosociological categories, as well as linguistic factors. This not only allows for a highly comprehensive account of language variation, but, crucially for the study of language attitudes, reveals how attitudes link to certain behaviour patterns.

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1 For more on the notion of style as a process of bricolage, see Hebdige (1984).

Of course, this is not the first time that language attitudes have been linked to variation, and the importance of speaker evaluations has been recognised since the birth of variationism. In their treatise on language change, Weinreich et al. (1968: 181, 186) stress the role of 'systematic evaluative reactions to linguistic features which the listener cannot consciously perceive', and they maintain that any theory of variation and change must 'establish empirically the subjective correlates of [such] evaluations'. The 'evaluation problem' tries to understand the links between 'the general attitudes and aspirations of the informants and their linguistic behaviour' (Labov 1972b: 162). Variationists have traditionally favoured indirect elicitation methods: Labov (2001: 206) adopts a modified version of the matched-guise test (see Chapter 12) as this 'elicited from subjects their unconscious evaluations of individual linguistic variables'. Kristiansen (2011: 270) questions whether it is ever possible to access participants' unconscious attitudes in experimental settings and instead proposes an elicitation protocol derived from the verbal-guise technique (see Chapter 13). This method arrives at a deeper level of speaker consciousness by distracting attention away from language – natural speech samples are used, and no mention is made of language in the question component, instead focusing solely on speaker personality traits (Kristiansen 2011: 275). The question of whether attitudes can specifically motivate language variation and change has been addressed in Labov (2001), Kristiansen and Jørgensen (2005), and Hawkey (2020). Recent work has found that 'language attitudes can motivate the subconscious choice of a particular linguistic variant' (Hawkey 2020: 31), but that researchers need to eschew 'one size fits all' models that reductively try to assign societal language attitude configurations to specific variation patterns; in order to truly understand how attitudes relate to language variation and change, researchers must 'set each case in its ideological context' (Hawkey 2020: 31).

There has thus long existed a relationship between the disciplines of variationism and language attitudes. While it may be clear what attitudes can reveal about variation, of even greater interest to this volume is what variation can tell researchers about attitudes. Variation is integral to certain language attitudes research protocols (most notably the matched-guise test, which – when examining intra-language variation – is entirely contingent on the different guises using alternate variants of the same linguistic variable). Likewise, a significant body of work on language attitudes focuses on participants' spontaneous production of variation (e.g. Ryan and Giles 1982; Llamas 2007; Llamas and Watt 2014). As stated in Chapter 1, the mentalist approach to language attitudes (see Agheyisi and Fishman 1970) interprets attitudes as factors that influence speaker behaviour, and Labov (2001: 33) conceptualises studies of language variation as addressing 'the behaviour of the individual speaker'. In contrast to this, a behaviourist approach to language attitudes would treat attitudes as observable behaviours in and of themselves (Agheyisi and Fishman 1970: 138), thus casting doubt on the level of independence between an attitude and its stimulus. The ways in which attitudes influence behaviours is of primary interest to those

taking a mentalist approach, with scholars according primacy to one attitudinal component (i.e. affective or cognitive) over another, based on its ability to predict behaviours (see Lavine et al. 1998). Language variation therefore serves as an example of linguistic behaviour, and attitudes scholars strive to elucidate the relationship between attitudes and behaviour patterns. How, therefore, to devise an experimental protocol that allows for such attitude–behaviour links to be rigorously and clearly tested? There are many ways in which these various elements can be successfully integrated into one method, and this chapter presents the protocol followed in Hawkey (2018) and Hawkey (2020). The methodology under discussion in this chapter is made up of several component parts (which can of course be modified to suit the needs of other case studies):

1.   In the first phase, a language attitudes questionnaire (see Chapters 9 and 10) is distributed widely throughout the speech community. Individual questions are grouped into useful categories for analysis – in this case, the 'status' and 'solidarity' dimensions used widely in attitudes scholarship (e.g. Carranza and Ryan 1975; Kircher and Fox 2019; for a more detailed discussion of the evaluative dimensions of language attitudes, see Chapter 1). The questionnaire yields both quantitative and qualitative data, allowing for a clear picture to emerge regarding the attitudinal and ideological forces at work in the community at large. This will prove indispensable when analysing the data, given the need to situate findings in their specific ideological context (see Hawkey 2020).

2.   In the second phase, the linguistic variables are elicited from a representative sample of participants (discussed in Section 6.3). This can be done in a number of ways – either through a classic or modified Labovian sociolinguistic interview (see Labov 1972a) or by means of a more restricted protocol, such as wordlist reading tasks (see Hawkey 2018, 2020).

3.   At this point, participants from the sample producing the linguistic variables are also asked to complete the same attitudes questionnaire as distributed in the wider community.

4.   Once the linguistic data are treated and coded (see Section 6.4), they are submitted to statistical analysis, with the model including classic Labovian macrosociological categories (such as age, sex, and social class) as well as the language attitudes scores for each participant. Therefore, it will not only be possible to establish statistically robust correlations between speaker demographic characteristics and variable usage (e.g. men are more likely to produce a given variant than women) but also to determine the role of language attitudes (e.g. a given variant is more likely to be used by someone if they rate a particular language highly on the solidarity dimension).

This chapter demonstrates that such a method allows for the rigorous integration of attitudes into variationist analyses, thereby allowing for a better understanding of how attitudes motivate language variation practices, and by extension, affording researchers a greater understanding of the links between attitudes and behaviours.

6.2   Strengths and Limitations

6.2.1   Strengths

The inclusion of attitudinal measurements in the variable rule (in order to determine the existence of statistically significant correlations between language usage and social factors) brings its own strengths. Most importantly, data can be treated with a high level of statistical rigour. For example, in line with current research practices, the data in the case study presented in Section 6.6 were submitted to mixed-effects linear regression modelling (LRMs, discussed in detail in Section 6.4). Mixed-effects models take into account both fixed effects (such as age, sex, or attitude score) and random effects which are not replicable (such as differences between participants or between different attitudes questions that make up a given aggregate score). The Rbrul interface (Johnson 2008, 2009) in the R environment is recommended as it is capable of integrating attitudinal scores into variable rule models with the statistical rigour required, and provides a user-friendly interface for scholars already familiar with packages such as VARBRUL. Another strength is the combined focus on attitudes and linguistic behaviours within one model. The importance of establishing correlations between language attitudes and linguistic behaviours is underscored by variationists (see Labov 1972b and the 'evaluation problem' cited above) and attitudes scholars (see the conative element of attitudes first given in Rosenberg and Hovland 1960) alike. Therefore, the ability not only to determine whether language attitudes influence linguistic practices (in this case, variation) but also to rank the relative weight of these attitudes alongside linguistic and extra-linguistic (macrosociological) factors, provides a comprehensive account of the relationship between language attitudes and linguistic behaviours.

6.2.2   Limitations

Of course, there are inherent limitations to any research protocol. In this specific case, the use of an attitudes questionnaire may compromise the ability of the researcher to access the 'unconscious attitudes' sought in Labovian studies (see Kristiansen 2011: 271 for a full discussion). The present method, in comprising questionnaire data that discusses language, and in not using naturally occurring speech data (but rather findings from wordlist reading tasks), shares in these shortcomings. However, potential awareness of the linguistic focus of the

task does not necessarily vitiate the findings – indeed, the discarding of conclusions due to potential awareness of the attitude on the part of the speaker would result in the loss of much valuable variationist and attitudinal data undertaken over the last fifty years. Another issue for protocols that include both attitudinal and macrosociological data as independent variables is one of potential collinearity. For instance, researchers may learn that women hold positive attitudes to a particular language on a given evaluative dimension, and that they also produce more of a given linguistic variant. In this case, when attitudes and macrosociological categories are included in one statistical model, attitudes may not appear significant due to potential collinearity with gender. Linear regression modelling allows (to some extent) for these cases to be unpicked using, for example, stepwise regression – but collinearity remains a potential limitation for researchers. However, holistic approaches to language attitudes (which would include qualitative speaker testimonies alongside the methods discussed here) may allow for insight into such issues, with attitudes and ideologies allowing us to better understand underlying mechanisms behind apparent gender or social class effects. There are also practical limitations regarding data collection. Particularly in situations of language obsolescence (like the case study presented below), there are several limitations regarding the collection of the wordlist translation data. Access to participants, availability of suitable recording environments, participant literacy (particularly in the minority language), and advanced participant age (interviewees in such situations are often visually impaired or hard of hearing) all have to be taken into consideration. This is discussed further in the next section.

6.3   Research Planning and Design

As noted above, the research protocol addressed here is made up of different experimental methods, each of which requires certain practical issues to be taken into consideration. However, this chapter focuses exclusively on the challenges faced when collecting variationist data – for matters relating to the design and distribution of language attitudes questionnaires and sampling designs, refer to the detailed overviews in the relevant sections of Chapters 9 and 10.

Prior to undertaking any fieldwork, protocols need to be approved by the appropriate research ethics committee – if the researcher is affiliated with a university, this should be part of its standard research support infrastructure (for more on ethics in linguistic research, see Eckert 2014). Researchers must also ensure that all participants are able to provide informed consent before any data is used (usually by means of a consent form) and are told that they may withdraw their participation in the study at any future time if so desired.

When selecting a sample of participants from which to elicit the language variation data (be that in the form of a wordlist, as here, or a full sociolinguistic

interview), the sampling method must be decided upon in advance. A chief goal of variationist analyses is the ability to draw broader conclusions about how language is used throughout a given speech community, and so any speakers chosen should be as representative as possible of the wider community (Schilling 2014: 31). True random sampling techniques are usually unfeasible due to the sample size required, and the inability to control for interactions with other social variables. This can result in data that are to a degree misaligned with the wider population – a truly random sample that is too small can easily under- or over-represent certain demographic groups. Moreover, there is no guarantee that members of a random sample would be willing to engage with the research, given the burden on participant time. For all these reasons, it is preferable to select participants by means of quota or judgement sampling (Schilling 2014: 35). Following this approach, the researcher decides which categories are the most pertinent to analysis prior to collecting the data. Given their broad applic-ability to a range of situations, it is unsurprising that macrosociological categor-ies such as age, sex, and social class are often selected as bases for the stratification of samples, though these are not without their problems (e.g. Schilling 2014: 47–51).

When deciding on prior categories for fieldwork stratification, researchers need to exercise caution and base any decisions on existing knowledge of the terrain – since the addition of analytical categories exponentially increases the number of participants required. Availability of informants in the requisite categories is of paramount importance when undertaking this sort of study.[2]

If the researcher is examining a situation of individual or societal bilingualism (as e.g. in the case study presented below), then further issues need to be taken into consideration, for instance the language(s) of research materials – this not only concerns printed or online questionnaires but also any stimulus texts for reading tasks. This relates to levels of linguistic competence in each language as well as to literacy. While many speakers may be fluent in minority varieties, situations of asymmetrical bilingualism could mean that they do not possess the requisite literacy to undertake written or reading tasks through the medium of the minority language (e.g. Kuipers-Zandberg and Kircher 2020). Similarly, in situations of language obsolescence, many speakers are older, rural, and isolated. Participant age may also necessitate alternative arrangements for the visually impaired, such as the decision to not use protocols that require reading. Similarly, if informants are hard of hearing, certain techniques that require extended listening (such as the use of matched- or verbal-guise tests) are not appropriate. When faced with these challenges, it is often wise to have multiple alternate means of gathering the data. Rural isolation of participants means that, while desirable, laboratory phonetic conditions may be unattainable, with experiments needing to be able to take place in private homes. For a more detailed discussion

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2 For a detailed discussion of stratification and sample size, see Milroy and Gordon (2003: 28–30).

of the challenges and practicalities of researching language attitudes in multilingual contexts, see Chapter 17.

The choice of recording equipment is crucial and influenced by the practical factors given above. Hardware must be of a sufficient quality to capture audio amenable to close phonetic analysis, and must be portable so as to be readily transportable between remote fieldwork sites. Researchers should be able to easily set up the equipment, so as not to intimidate participants who may not be used to (seemingly) formal research protocols, and also so that informants are not required to give up more time than necessary. For these reasons, a device such as a portable Solid-State Recorder (the Marantz PMD661 MKII) is recommended, with a 16-bit sample size and an uncompressed sampling rate of 44.1 kHz. Both researcher and participant are advised to wear AudioTechnika AT803B omnidirectional lavalier microphones that are quickly and discreetly clipped to the lapel area, out of the shadow of the chin, and not directly in the speaker's airstream (following guidance in Cieri 2011: 30).[3]

6.4   Data Analysis and Interpretation

The research protocol described above yields three different sets of data: the quantitative attitudinal questionnaire results, the language variation data, and the qualitative survey findings. In order to form part of one cohesive assessment of language attitudes in a given speech community, the analysis of any one element needs to be informed by the other components of the experiment. In this section, each data set will be addressed in turn, though most detailed attention will be paid to the collection of variationist data, given the specific focus of this chapter.

The first part of the data collection consists of a language attitudes survey in which participants' attitudes about language varieties are elicited, and several techniques for analysis and interpretation for these can be found in Chapter 9. In the present case, given the multiplicity of methods employed, an analytical approach should be used that can later integrate the language variation findings in the same model.[4] As such, mixed-effects LRMs using the Rbrul interface (Johnson 2008) in the R environment are a good choice, as these take into account not only fixed effects (such as macrosocial category membership or participant language competence), but non-replicable random effects (such as the differences between individual participants or between question responses within one category). Eventually, language attitudes will be used as independent

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3 Of course, fieldwork throws up unexpected surprises – such as the farmer working at the height of summer who wanted to be interviewed shirtless, thus depriving the researcher of a feasible place to clip the microphone!

4 A detailed description of the attitudes survey fieldwork methods can be found in Hawkey (2018: 54–55).

Figure 6.1 Annotated (simplified) .csv output for attitudinal variable analysis

variables, while the production data will be treated as the dependent variable. But first, in order to gain a full understanding of the attitudinal landscape of the speech community, it is necessary to focus on the attitudes themselves in order to determine how they pattern with macrosociological categories or participant language competence. In this regard, they should be treated as dependent variables, as is typical in attitudes questionnaire studies. The survey questions are therefore separated into their different varieties and different evaluative dimensions (see above). At this point, the different categories need to be examined separately.[5] In order to be treated in Rbrul, data relating to one category for analysis should be entered into a single .csv (comma-separated values) file for processing, as in Figure 6.1.

The contents of this example .csv file are taken from the case study presented in Section 6.6. The type of data in each column is labelled, but the following abbreviations may prove useful in reading the different .csv file images prior to examining the case study in depth:

1. Birth (participant place of birth): This column contains references to different geographical locations, with the degree of granularity determined by the researcher. Here, POR refers to 'Pyrénées-Orientales' (the area of study) and SUD refers to 'elsewhere in southern France'.

2. Resid (participant place of residence): Again, this column contains references to different locations, as deemed useful by the researcher: PPN refers to the city of Perpignan.

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5 For example, *Language 1 Status* or *Language 2 Solidarity*. In the case study presented in this chapter, the attitude objects are French and Catalan, and so *FrenStat*, for example, refers to evaluations towards French on the status dimension.

3. Class (social class): This is a classification arrived at by the researcher based on knowledge of the research context. Here, letters A–G stand for different social class categories.

4. Categories *FrenStat, FrenSolid, CatStat,* and *CatSolid:* These refer to aggregate scores for the attitudes towards each language under study (French and Catalan) on the two key evaluative dimensions (status and solidarity).

The simplified output in Figure 6.1 reveals the information necessary to include in the mixed-effects LRM. The second to seventh columns represent the macro-sociological categories and language competence scores that serve as independent factors in the analysis. The eighth column (*FrenStat*) contains the attitudinal survey results – at this point, the dependent variable. The first and last columns are the random effects (hence the need for a mixed-effects model) – here, these correspond to individual questions of a composite sample and differences between participants. The data are then run in Rbrul, with the appropriate variables selected as dependent and independent variables, specifying for random intercepts. In short, this first phase is a classic statistical analysis of the wider survey data and allows the researcher to understand how demographic characteristics (such as age, sex, social class, place of origin, language competence, etc.) correlate with speaker attitudes.

The second data set consists of speaker behaviours, elicited under experimental conditions.[6] Before being submitted to statistical analysis, these first need to be coded. For phonetic data, programmes like Praat (Boersma and Weenink 2020) provide all the necessary detail for a highly sophisticated analysis.[7] Before analysing acoustic data, normalisation is necessary – given inter-speaker anatomical differences, it would be impossible to compare speakers and groups using raw Hertz values. A full typology of normalisation algorithms can be found in Watt et al. (2011: 113–115). For morphosyntactic data, each variant is simply assigned a code, and then identified auditorily and entered into the .csv file. These spoken data are now the dependent variable, with language attitude scores serving as independent variables (alongside the macrosociological and language competence variables used above). It is therefore necessary to calculate an aggregate score per participant per attitudinal category – this allows for one attitudinal score value per participant, just as for the other independent variables. These data are then entered into a .csv file, as in the first stage.

The sample output in Figure 6.2 provides data in which attitudes are ready to be integrated into the analysis of a phonetic variable (in this specific case, potential raising of /o/ to [u]). The analysis proceeds much as for the attitudinal data discussed in Figure 6.1. Again, the second to seventh columns represent the

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6 A detailed description of speaker behaviour analysis methods can be found in Hawkey (2018: 62–66).

7 Newcomers to sociophonetics should consult Di Paolo and Yaeger-Dror (2011) for a comprehensive and accessible guide to using appropriate tools and software.

Code	Age	Sex	Birth	Resid	Class	LgComp	FrenStat	FrenSolid	CatStat	CatSolid	Word	A
AA	48	F	POR	PPN	B	1	1.7	1.5	4.2	4.7	CALOR	O
AA	48	F	POR	PPN	B	1	1.7	1.5	4.2	4.7	COLZE	O
AA	48	F	POR	PPN	B	1	1.7	1.5	4.2	4.7	TOT	U
AB	59	F	SUD	PPN	B	2	3.7	3.3	2.7	2.3	CALOR	U
AB	59	F	SUD	PPN	B	2	3.7	3.3	2.7	2.3	COLZE	O
AB	59	F	SUD	PPN	B	2	3.7	3.3	2.7	2.3	TOT	U

Anonymous participant code

Macrosociological categories (as in Figure 1)

Language competence

Attitudinal survey responses (aggregate scores, one per participant per category)

Stimulus item

Aud Variant	Syllable	Preceding	Following	F1 Mid	F2 Mid	F3 Mid	F1 Norm	F2 Norm	F3 Norm
O	C_#	L	#	575.93	1070.58	1523.15	-0.761	-0.093	-0.106
O	C_C	K	L	630.36	1182.71	2392.51	0.323	0.742	1.877
U	C_C	T	T	528.15	824.59	1954.93	0.392	-0.585	-0.384
U	C_#	L	#	409.24	970.83	1638.21	-1.004	-0.138	-1.313
O	C_C	K	L	710.24	1326.08	1924.84	1.411	1.699	0.311
U	C_C	T	T	525.25	978.69	2404.55	-0.269	0.536	-0.124

Auditory (impressionistic) analysis

Linguistic factors

Raw Hertz values for the first three formants

Normalised values for the first three formants

Figure 6.2 *Annotated (simplified) .csv output for phonetic variable analysis*

macrosociological categories and language competence scores that serve as independent factors in the analysis. Additionally, the four attitudinal categories (here, *FrenStat, FrenSolid, CatStat*, and *CatSolid*) can now be treated as independent variables (remembering that these second-phase participants were also asked to complete the attitudes questionnaire) and entered into the model in exactly the same way as the macrosociological categories. In order to account for language-internal factors, the columns *Syllable* (giving syllable type), *Preceding* (indicating preceding phoneme), and *Following* (for following phoneme) can also be included in the mixed-effects model as independent variables. The *Code* and *Word* columns contain the random effects, corresponding to differences between participants and between specific words produced. The table shows that both auditory (impressionistic) and acoustic approaches were taken to the data, and either of these can be treated as dependent variables for analysis. For the auditory data, the *AudVariant* column can be treated as a categorical (binary) dependent variable, with the values O and U corresponding to perceived realisations of [o] and [u] respectively. For the acoustic data, it is necessary to select the relevant formant as a continuous dependent variable (F1 for height, F2 for backness, F3 for rounding) and to use the normalised (not raw) data, so as to be able to compare across speakers.

Code	Age	Sex	Birth	Resid	Class	LgComp	FrenStat	FrenSolid	CatStat	CatSolid	Word	Variant
AA	48	F	POR	PPN	B	1	1.7	1.5	4.2	4.7	BALLO	O
AA	48	F	POR	PPN	B	1	1.7	1.5	4.2	4.7	CANTI	I
AA	48	F	POR	PPN	B	1	1.7	1.5	4.2	4.7	LLEGEIXI	I
AB	59	F	SUD	PPN	B	2	3.7	3.3	2.7	2.3	BALLI	I
AB	59	F	SUD	PPN	B	2	3.7	3.3	2.7	2.3	CANTO	O
AB	59	F	SUD	PPN	B	2	3.7	3.3	2.7	2.3	LLEGEIXO	O

Macrosociological categories (as in Figure 1) — Language competence — Attitudinal survey responses (aggregate scores, one per participant per category) — Binary dependent variable — Anonymous participant code — Stimulus item

Figure 6.3 *Annotated (simplified) .csv output for morphosyntactic variable analysis*

The sample output in Figure 6.3 is similar to Figure 6.2, but for a morphosyntactic variable (in this case, the realisation of the first-person singular present indicative morpheme as -*o* or -*i*). The data are treated as for the phonetic analysis above; that is to say the macrosociological categories, language competence score, and attitudinal responses serve as independent variables, and the *Code* and *Word* columns are random intercepts. The categorical (binary) dependent variable appears in the final column.

Finally, qualitative answers to survey questions provide a source of data for analysis. Hawkey (2020), following Kristiansen and Jørgensen (2005), underscores the importance of setting any study that attempts to uncover the relationship between attitudes and variation in its ideological context. Only through in-depth familiarity with prevalent language ideologies can we hope to understand how to interpret individual speaker attitudes, and by extension, grasp how these connect to language behaviours such as variation. As such, 'there is no "one size fits all" model by which we can discern if certain attitudes will somehow lead to particular patterns of language variation' (Hawkey 2020: 31), and qualitative data are essential in allowing the researcher to construct a frame of reference within which to accurately interpret quantitative data. See Chapter 10 for an extensive discussion of how best to interpret and analyse any qualitative data that may arise from attitudes questionnaires.

6.5   New or Emerging Trends

Cognitive sociolinguistics is an approach that was outlined in Kristiansen and Dirven (2008: 4) and intends to 'extend the cognitive paradigm into the regional and social patterns involved in linguistic symbolisation'. Through its interest in variation and its capacity to combine usage-based approaches with cultural models and Critical Discourse Analysis, cognitive sociolinguistics shows great potential for enhancing understanding of language

attitudes (Geeraerts 2008: 40) and can offer new methodological insights. In the past, quantitative approaches to language attitudes received criticism from social constructionist scholars (e.g. Potter and Wetherell 1987) for 'the very notion that evaluative responses are supposedly linked with and based on stable underlying states of mind' (Soukup 2013a: 254). In fact, Soukup (2013a: 258) argues that attempts to quantify attitudes in a scalar manner are more accurately described as measuring 'the social meaning of linguistic variation'. She claims that this interpretation of quantitative attitudes study as being inherently linked to variation is a means to justify its usage in the face of social constructionist critiques (Soukup 2013a: 259) and adopts a cognitive sociolinguistic model that encompasses attitudes and variation. This approach is influenced by the third wave of variationism (also known as *speaker design*) where, as mentioned in Section 6.1, speakers make use of the indexical potential of varieties and variants in a dynamic identity construction process. An example method of how third wave variationist approaches can shed light on language attitudes is given in Soukup (2013b), which consists of a third wave analysis of Austrian German wherein speakers are first shown to engage in variation motivated by wider ideological and attitudinal constructs. Then, a second group of participants are asked to listen to recorded instances of variation and determine whether the data consist of Austrian dialect or standard Austrian German. The chief finding is that variation and attitudes (the latter framed in terms of perception of varieties as standard or dialect) are operationalised in highly similar ways. Namely, when speakers are asked to judge a given variety, they draw on different associated social meanings much in the same way as when they engage in style shifting (Soukup 2013b: 79). This cognitive, usage-based approach reveals just how closely linked language variation and language attitudes are, and how knowledge of the one informs views of the other. In the method presented in this chapter, a cognitive sociolinguistic approach has not been adopted, but the emphasis placed on the context-dependent nature of attitudes (as reflected in Soukup's method) is captured in the grounding of analytical conclusions in qualitative ideological findings that reflect the specific concerns of the speech community under investigation.

6.6   Case Study: Language Attitudes in Northern Catalonia

In the present case study, I examine language attitudes in conjunction with variable analysis in order to provide a (relatively) complete sociolinguistic picture of a situation of ongoing language obsolescence, namely that of Catalan speakers in southern France.[8] Northern Catalonia (*Catalunya Nord*) is a region in the south of France that forms part of the traditionally Catalan-speaking territories (the *Països Catalans*). In terms of population, it is dominated by the city of

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8 For a full discussion of the experiment and its results, see Hawkey (2018), Hawkey and Mooney (2021), Mooney and Hawkey (2019), and Hawkey (2020).

Perpignan, where approximately 70 per cent of the area's inhabitants live (around 320,000 of a regional total of 463,000; INSEE 2015).

Catalan has been the autochthonous language of Northern Catalonia for over a millennium, ever since the local varieties of Romance started to diverge significantly from neighbouring forms of speech around the ninth century. The area has been under French control since 1659, when the Treaty of the Pyrenees established the present border between France and Spain. After the French Revolution, there was an ideological shift against the use of regional languages such as Catalan (which was near-ubiquitous in Northern Catalonia at this point) in favour of French, as the language of Republican values. This was reinforced by the Jules Ferry laws of the 1880s which ensured free, primary education for both sexes through the medium of French. However, it was only with the advent of World War I, and the enormous demographic upheaval that this entailed, that regional languages started to lose ground to French. By the mid-twentieth century, native French competence was almost universal in Northern Catalonia, and use of Catalan was in sharp decline. This has resulted in the present situation of language obsolescence, where Catalan enjoys far less ethnolinguistic vitality than in other Catalan-speaking regions, with usage greater among rural and older speakers.

This study adheres to the research protocol described in Section 6.1. In the first phase (the attitudes questionnaire), 311 surveys were collected and analysed from participants throughout the region, mostly in and around Perpignan (the other fieldwork sites were the smaller towns of Rivesaltes, Argelès-sur-Mer, Thuir, Céret, and Prades). In the second phase (elicitation of spoken data), a smaller set of participants undertook a wordlist translation task. For each variable, there were local and supralocal variants – local variants are typical of Northern Catalan speech, whereas supralocal usage is reflective of an increasingly present pan-Catalan standard, influenced by the normative language (a codified variety of Central Catalan, with geographical origins in the central part of the Autonomous Community of Catalonia, to the north of Barcelona). This approach was favoured for two key reasons. Firstly, translation between French and Catalan is a frequent and natural activity for these bilingual participants. Secondly, given the advanced age of several participants, it was preferable to keep the data elicitation as brief and straightforward as possible – this was a means to ensure that the relevant variables were elicited without requiring extensive spontaneous speech data. See Section 6.3 for further discussion of how best to tailor research protocols to the needs of participants. There are of course inherent limitations (see Section 6.2), as with any research protocol (e.g. a potential priming effect from the stimulus language), but these are not so great as to compromise the findings. Two fieldwork sites were chosen – the city of Perpignan and the village of Serdinya (population 227) – in order to compare urban and rural scenarios and to test whether phenomena of peri-urbanisation seen elsewhere in France (wherein language practices of the cities spread to surrounding countryside) hold true in northern Catalonia. The sample was

divided by participant sex as well as fieldwork site – following Milroy and Gordon's (2003: 45) guidelines of five participants per cell, this required twenty participants (see Section 6.3 for issues surrounding stratification and sampling). Finally, the qualitative data were elicited from two sources: open-ended answers to survey questions (completed by the 311 first-phase participants as well as the 20 wordlist task participants) and semi-structured interviews conducted with some wordlist participants.

In providing a snapshot of the general language attitudes situation in Northern Catalonia, the questionnaire data proved highly insightful.[9] While the prevalence of monoglossic language ideologies in favour of French is no surprise given the institutional and social context, attitudinal data reveal the degree of pervasiveness of the belief in the primacy of French. Students in the sample showed a relatively strong bias against Catalan on both status and solidarity dimensions, arguably due to their continued participation in a monolingual education system. Social class proved to be a significant predictor, with working-class informants conforming more greatly to received ideas regarding the limited status and/or solidarity value of Catalan when compared to French; upper middle-class trained professionals viewed the minority language more favourably than their working-class counterparts. Moreover, the survey data showed that there was no clear oppositionality between French and Catalan; that is to say, a high solidarity rating for Catalan does not necessarily preclude a similarly high solidarity rating for French. This is in stark contrast to what can be seen in the Autonomous Community of Catalonia, where official government statistics (IDESCAT 2013) reveal that speakers frequently identify with either Catalan (36.4%) or Spanish (47.6%), but rarely both (7%). While informative, these findings can be somewhat developed. The present method seeks to deepen our understanding of language attitudes by relating them to speaker behaviour patterns: So how can we build on the insights brought by the survey results?

I argue that studying language variation allows us to learn a great deal about language attitudes since speaker engagement with variation occurs at a lower level of 'social awareness' (to borrow the term from Labov's 1972a discussion of change from above and below) than many of the behaviours hitherto studied alongside attitudes. Speaker behaviours are typically not purely manifestations of attitudes but are mediated by social desirability concerns (see Fishbein and Ajzen 1975), and studies to date have frequently focused on overt behaviours such as language choice (see Casesnoves Ferrer and Sankoff 2003). Given the low level of awareness behind the usage of a particular variant, the study of variation may actually provide '"purer" manifestations of language attitudes when compared to "behaviours" in the traditional sense' (Hawkey 2018: 139), since their unconscious nature somewhat mitigates social desirability biases. Unlike similar

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9 For a full discussion of attitudinal data, with the complete output of the LRMs, see Hawkey (2018: 79–114). Here, I will only address findings which attained the significance threshold of $p < 0.05$.

Table 6.1 *Summary of correlations by variable studied*

	Phonetic variables				Morphosyntactic variables			
	(R)	(IX)	(O)	(ə)	(1SG)	(PRET)	(MEU)	(LLUR)
Macrosociological factors	✓	✓	✗	✓	✗	✓	✓	✗
Attitudinal factors	✓	✓	✓	✗	✗	✗	✓	✓

research protocols, this method uses a larger participant sample for the attitudes survey than for the production study, for a number of reasons. Firstly, a greater sample size for the attitudes questionnaire provides robust data for statistical testing. Secondly, given the advanced state of obsolescence of Catalan in Northern Catalonia, it would have been impossible (and impractical) to gather production data from over 300 participants. Such practical constraints on researcher time and resources are important factors to consider when devising methodological protocols (see Sections 6.2 and 6.3). In the case of Northern Catalonia, language attitudes were shown to function as statistically significant predictors of speaker behaviours for some of the variables studied, with significant correlations given in Table 6.1 (ticks indicate a statistically significant correlation, $p<0.05$; crosses mean there are none).

For the phonetic variables, attitudinal factors were statistically significant in three cases. Favourable views towards Catalan on the status dimension were positively correlated with the usage of supralocal variants for the (IX) and (O) variables; similarly, favourable views towards Catalan on the solidarity dimension were positively correlated with use of local variants for the (R) and (O) variables (Hawkey 2018: 140). The same pattern was seen for the morphosyntactic variables (MEU) and (LLUR), with favourable Catalan status evaluations positively correlating with supralocal usage and favourable Catalan solidarity evaluations correlating with local variants (Hawkey 2020: 27–28). This is explained as follows:

> Participants who view Catalan as a language of status, utility, and potential overt prestige are aligning themselves with supralocal norms, characteristic of areas where Catalan is already a prestige language. Likewise, participants who view Catalan as a vehicle of solidarity are more focused on heritage concerns, and thus there is greater symbolic capital in adopting local variants, to be used to convey a credible identity that places a high value on attachment to Northern Catalonia, rather than other Catalan speaking areas. This echoes conclusions drawn in Ladegaard (2000: 214), in which participants who displayed more positive attitudes towards their local vernacular varieties (determined through surveys and verbal guise testing) also used more local variants in their speech (Hawkey 2018: 141).

Finally, the qualitative data obtained allow for a comprehensive understanding of these links between attitudes and speaker behaviours by setting them in their

specific ideological context. In interviews, participants underscored the importance of cross-border mobility and the fact that Catalan, despite its minority status, afforded a range of opportunities, both in terms of access to the nearest metropolis (Barcelona), and in the tourism sector at home in Northern Catalonia, due to increasing interest from Catalan-speaking visitors from across the border. The narratives that emerge from qualitative data remind us of the specificities of this language situation – namely that Catalan, as an obsolescent minority variety, can be bolstered by its high ethnolinguistic vitality in a contiguous region, governed by entirely different language policies. In this way, language policies are shown to 'cross borders' and reach beyond the jurisdiction where they are intended to apply. But, as I have mentioned, this is a specificity of the Northern Catalan case, and does not apply elsewhere, not even in seemingly highly similar language scenarios. Therefore, ensuring that all conclusions are grounded in ethnographic insight and suitably analysed qualitative testimony is crucial to guarantee accurate interpretations of the data, and prevent researchers from falling into the trap of adopting a 'one size fits all' model wherein a particular behaviour is seen as consistently linked to a specific language attitude across different scenarios. The reality is far more complex.

Suggested further readings

Di Paolo and Yaeger-Dror (2011); Eckert (2012); Hawkey (2018); Kristiansen (2011); Schilling (2014)

Direct Methods of Attitude Elicitation

7 Semi-Structured Interviews

Petros Karatsareas

7.1 Introduction

Interviews are among the most widely used methods of data elicitation in the social sciences. In the earlier stages of their use, up to the 1930s, they were distinguished from questionnaires (see Chapters 9 and 10) based on whether participants completed written questionnaires themselves or whether this was facilitated by an interviewer. As questionnaires became a more established way of collecting quantifiable data in the 1940s and 1950s, interviews came to be more firmly grounded in the qualitative realm of research. The 1960s and 1970s saw researchers engaging in methodological discussions about different aspects of interviews as contextually and socially situated speech events, including researcher positionality and the power dynamics between interviewer(s) and interviewee(s) (see Platt 2012 for an insightful overview of the history of the interview, albeit with a focus on social research undertaken in the US).

The interview was first used as a method for eliciting linguistic data by Labov (1966) in his study of English in New York. However, the sociolinguistic interview, as it came to be known, is different to the type of interview that this chapter is concerned with. In the Labovian paradigm, the aim of the interview is to collect multiple and varied occurrences of a linguistic variable in a range of speech styles, which are later analysed quantitatively to identify patterns of distribution across different groups of speakers in terms of broad social factors such as age, gender, and socioeconomic status. In that, the Labovian interviewer is not as much interested in the content of the participants' responses to their questions (or, rather, prompts) as in their productions. In language attitudes research, by contrast, the focus is primarily the content of participants' responses (but see also Chapter 6 for a discussion of instances where production is of interest). Interviews are thus used in ways similar to other disciplines within the social sciences, such as linguistic ethnography and anthropology. Their aim is to elicit information in a direct way about what people believe, think, and feel about language – and why.

In their most basic form, interviews involve the elicitation of information from a participant by a researcher in a speech event that resembles a one-to-one conversation. (For focus group interviews, in which information is elicited from multiple participants at the same time, see Chapter 8.) Different types of interviews can be identified depending on the degree of structuredness of the

structured
(yes/no questions, multiple-
choice questions, pre-set order)

unstructured
(open-ended questions,
no pre-set order)

semi-structured
(mix of closed and open-ended
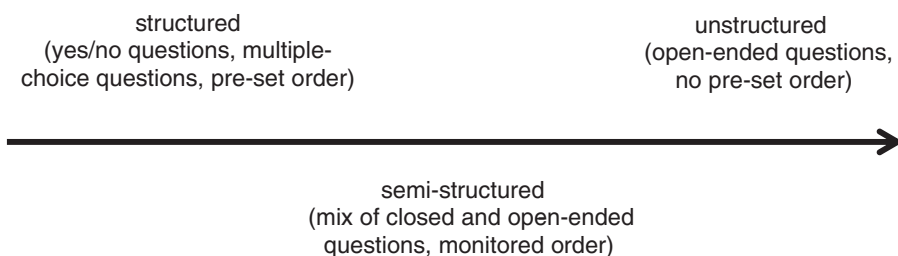questions, monitored order)

Figure 7.1 *Continuum of structuredness*

exchange between the researcher and the participant. At one end of the continuum (Figure 7.1), there are structured interviews, whereby the researcher asks all participants in their sample the same questions, each time following the same pre-set order. Structured interviews include a high number of yes/no and multiple-choice questions and provide little space for open-ended questions. If open-ended questions are included, participants' responses are generally expected to be brief. At the other end of the continuum are unstructured interviews. Revolving mostly around open-ended questions, which participants are given the freedom to answer in any way and to any extent they want to, and jumping from one topic to another in no particular order or controlled fashion, they are much like casual conversations.

Semi-structured interviews lie between these two types. While they do not necessarily follow a pre-set order in covering the topics in which the researcher is interested, they are designed to ensure that these topics – or, at least, as many topics as possible – are covered. To this end, the researcher monitors how the interview is going, using a pre-prepared interview protocol so that, when the participant's responses veer away from the agenda, the researcher can employ discursive strategies to refocus the interview. The researcher can also spontaneously ask questions that are not in the protocol, if new and interesting dimensions are revealed during the interview. Semi-structured interviews are mostly based on open-ended questions that prompt participants to develop their thoughts and ideas in depth, expressing their views on the subject matter from their own personal perspectives, talking about their experiences, and using their own words. Yes/no questions may be asked, but they must almost always be followed up with open-ended questions that seek to obtain further information in the form of clarifications, justifications, elaborations, exemplifications, or illustrations.

7.2   Strengths and Limitations

7.2.1   Strengths

Semi-structured interviews can be used at the earliest stages of the research design to put together the research background, formulate and refine

research questions, and generate hypotheses. Interview data can then form the basis for further investigation, both qualitative and quantitative; for example, they can inform the design of questionnaire and survey items. Interviews can also be used at the final stages of research to collect feedback from participants or assess the impact of a research-based intervention on a group of people (see Chapter 21 for a more detailed discussion of interviews and other methods as part of mixed-methods approaches to the study of language attitudes). Many projects, however, employ interviews as their sole data collection method.

Interviews can elicit information about both status and solidarity as the two main evaluative dimensions of language attitudes (Woolard 1989; see also Chapter 1). They can give the researcher direct access to participants' (own accounts of their) affect and cognition but only indirect access to conation as participants may well self-report on their behavioural intentions, but their actual behaviour in real-life circumstances is not directly observed as part of the interview (Rosenberg and Hovland 1960; Hilgard 1980; see also Chapter 1). They can bring to the fore both commonalities and shared understandings across participants, and different viewpoints around a central theme. Thanks to their flexibility and relative spontaneity, interviews can not only corroborate or challenge knowledge that the researcher has formed about the topic at hand prior to the interview, but they can also bring to light entirely new information, new topics, or new dimensions to established knowledge. Owing to their direct nature, researchers can use interviews to build substantial sets of rich and in-depth data relatively quickly while at the same time having the opportunity to establish good rapport with participants. Interviews create a space for participants to talk about their views on language in their own words and to construct their own narratives around their lived experiences of issues such as the stigmatisation of their or other people's language, language-based discrimination, or language racism. This is certainly another strength of the method. Edley and Litosseliti (2010) discuss the sense of empowerment that interviews generate among participants, and the ability they give them to shape the research agenda by steering it towards directions that they deem worthwhile. This becomes particularly important in the case of participants from minoritised, underrepresented, or disadvantaged groups.

7.2.2   Limitations

Garrett et al. (2003: 24) see in interviews 'a high degree of obtrusiveness' in that 'it is the informants themselves who are asked to report their attitudes'. Another major limitation of semi-structured interviews stems from the fact that they are not mere question and answer sessions aimed at uncovering objective facts (or, truths) about people's views on language. Rather, they are contextually and socially situated speech events (Heller et al. 2018: 87–89). They are first and foremost shaped by the spatial and temporal context in which the interview takes place. The relationship between the interviewer(s) and the

interviewee(s) also plays a key role in framing the interaction between them. This includes how much and what they know about each other prior to the interview as well as any potential power imbalances between them. Previous knowledge, experience, and understanding that the interviewer(s) and interviewee(s) have of the topic to be covered during the interview as well as of the interview as a form of interaction, are some other important determinants in that respect. In that connection, Codó (2008) and Edley and Litosseliti (2010) both make the point that degrees of familiarity with the way interviews work differ across the world depending on participants' cultural contexts and socio-economic backgrounds.

Depending on how these dynamics play out during the interview, participants will constantly tailor their responses in different ways. For example, participants who belong to linguistically minoritised and disenfranchised groups may be reluctant to talk about their experiences of linguistic discrimination to an interviewer who belongs to the dominant linguistic group and/or in a physical setting that is emblematic of linguistic inequality (such as a school classroom or a room in a library or university building). In other cases, participants may say what they believe the interviewer wants to hear (*social desirability bias*) or agree with interviewers' questions and prompts, regardless of their content (*acquiescence bias*), in order to portray what they see as a more positive image for themselves (Garrett et al. 2003: 28–29; Krug and Sell 2013: 75). Both these types of bias are particularly strong in face-to-face methods, including interviews. For example, people who use non-prestigious forms of language in their speech (e.g. features of non-standardised varieties, slang terms, or colloquial expressions) may deny using them at all. Similarly, people might not want to reveal that they hold strongly negative views towards such forms, especially if their use has racial, ethnic, and/or class connotations to avoid associating themselves with these types of discrimination. An added difficulty has to do with the fact that, to many people, language attitudes seem commonsensical (see also the discussion in Chapter 1). As Codó (2008: 162) points out, 'values, attitudes, beliefs, and motivations tend to be difficult to verbalize [...] rarely do speakers reflect on these issues in an explicit manner unless awareness of language is heightened'.

7.3   Research Planning and Design

Like all research methods, semi-structured interviews need to be carefully designed and planned before they are put to use, not least because there are ethical considerations that apply to interviews, which make their careful design even more crucial. Interview participants agree to give up their time to answer questions on the spot about topics that might make them feel uncomfortable, and in a context where they might find it difficult to stop participating (even if the researcher has previously informed them that they may do so at any time without having to specify the reason). Researchers must therefore ensure that they take note of the efforts participants make to be interviewed, and they should

clarify that they recognise them. These and other ethical aspects of conducting language attitude interviews – such as obtaining informed consent from participants – need to be taken into account as part of securing ethics clearance from researchers' institutions or other appropriate authorities (see the contributions in De Costa 2016 on how to address ethical issues in applied linguistics research, including interviews).

When designing an attitudes project that includes interviews, researchers need to establish a critical body of knowledge about the social, cultural, political, economic, and linguistic circumstances of the group whose attitudes are to be investigated, paying equal attention both to the group's past and to their present (Schreier 2013). They need to become familiar with everyday aspects of their participants' lives and, if possible, also participate in some of the social activities that their potential interviewees engage in. In this way, they will develop a solid understanding of the research background, and they will become known to their participants and start building relations of trust with them. Their awareness of what is and what is not considered appropriate behaviour in the group will also increase. These insights will inform the overall design of the project and that of the interviews in particular. Familiarity with, and involvement in, their participants' community will additionally help researchers to recruit people to be interviewed. When there is a risk that the researcher is perceived as an outsider to the group, and especially as coming from a linguistically dominant group, it might be necessary that the researcher is introduced into the community by a *gatekeeper* – that is, a person of respect and power in the community, who will need to be sympathetic to the researcher's project in order to vouch publicly for their legitimacy and trustworthiness. In any case, researchers always need to be honest about the purposes of their research and explain from the outset – with clarity and in as much detail as possible – what participation in the interviews would entail for participants.

A key element of interview preparation is the *interview protocol* – that is, a document that the researcher uses as a guide during the interview. Its main feature is the list of questions the researcher will ask the participants, but it also includes information that the researcher will give to the participants about, for example, the research project itself, the interview process, and aspects of ethics (e.g. voluntary participation, anonymisation, use of data, what to do in case of discomfort). Castillo-Montoya (2016) developed an interview protocol framework aimed at helping researchers to obtain robust and detailed interview data. Comprising four phases, the framework structures the process of preparing the protocol from aligning the interview questions with the project's research questions, to clearly wording questions and fine-tuning them, and finally to piloting the protocol with a small sample of participants. The protocol should also include strategies for the researcher to use when interviewees go too far off topic in their responses. When this happens, researchers should always let interviewees finish and politely ask them to return to the topic of interest. They should acknowledge the value of the interviewees' contribution and follow up with an explanation as

to why they intervene in this way. Lack of time can work well as a justification if this situation arises.

When organising the interview, researchers need to consider a number of practical details, not least when and where the interview will take place. Researchers need to be flexible when negotiating both time and place with their interviewees, and they should show that they are willing to work around their everyday commitments. When deciding on the timing of the interview, researchers should offer participants several options, and they should be prepared to arrange interviews outside of normal working hours, including during the weekend, as these are likely to be the times when participants will be available. The same applies to the location of the interview: Again, researchers should offer participants a range of options (e.g. a meeting room in the researchers' institution, a room in a local community centre, the participant's home) and allow them to choose what is most convenient and appropriate for them. As a general principle, settings that could have a negative effect on participants' wellbeing as well as on their responses during the interview should be avoided. For example, some pupils might feel comfortable talking about how their schools ban or even sanction the use of non-standardised language in class as part of an interview that takes place on their actual school premises (provided the researcher creates an environment that feels safe enough to them). Other pupils, however, might not feel the same way and prefer to be interviewed about this issue outside school. The choice of location will also need to be informed by issues around data capture. Some spaces might be too noisy, which could render audio recordings very hard to transcribe or even completely inaudible. For these reasons, it is important to test and become familiar with recording equipment before the interview, ideally in the space where the interview will take place. This preparation will also help with minimising the obtrusiveness of the equipment for participants.

7.4   Data Analysis and Interpretation

The analysis of interview data starts with the transcription of the interview, which in most cases is audio-recorded. This is done especially when researchers are not interested in how and why participants use visual or other non-verbal features in talking about their views and experiences of language. When these are part of the researchers' investigation and, of course, in projects that include signing communities, interviews are video-recorded (see also Chapter 18).

It is generally advisable that researchers transcribe interviews in their entirety as opposed to only transcribing parts which they consider interesting or relevant. It is only by having a full transcript that researchers will have a full overview of what was said, by whom, at which point in the interview, and what the impact was on the direction of the discussion. Transcription conventions and the level of

detail in the recording of different aspects of the speech event will depend on the nature of the research project, not least the aims and objectives the interviews are designed to address and the theoretical framework that is adopted for analysis (Lapadat 2000). For example, if pauses are not part of the analysis, they can be indicated using an ellipsis $< \ldots >$ or in writing as in [PAUSE] to give a broadly accurate representation of the speech event. By contrast, if data are to be analysed within a discourse analytic framework (see Chapters 2 and 4), pauses might need to be timed and their duration specified, for example by writing (2.5) to indicate a pause of two and a half seconds.

In language attitudes projects, which, as noted above, are interested in the content of participants' contributions rather than in how these contributions are verbalised, researchers tend to transcribe recorded speech using the standard orthography of the language(s) in the recording – including some broad indication of things like pauses, hesitations, interruptions, repetitions, false starts, and self-corrections (see Hutchby and Wooffitt 1998 for a detailed discussion of transcription techniques; also Nikander 2008). Where a standard orthography does not exist for a particular variety, or where participants' contributions include non-standardised or other features that are not routinely written, a number of options are available for researchers. They can make their own, ad hoc adaptations to standard orthography or adopt spelling conventions that may be in use by the speaker communities themselves (Sebba 2007; see also the contributions in Jaffe 2000). Using the International Phonetic Alphabet is also a possibility, especially if other solutions fail to capture pronunciation in an appropriate way.

If more than one language is used in the recording, the current trend is for every language to be transcribed with its own appropriate orthographic conventions, and without using any kind of notation that would suggest that one language is more 'normal' or more important than the other (Blackledge and Creese 2010; see also Bashiruddin 2013; Holmes et al. 2016). To apply this principle to the title of a seminal article in the study of code-switching, Poplack (1980), one would transcribe the sentence as in (1a) rather than (1b) or (1c).

(1)   a.   Sometimes I'll start a sentence in Spanish y termino en español.
         b.   Sometimes I'll start a sentence in Spanish *y termino en español*.
         c.   Sometimes I'll start a sentence in Spanish Y TERMINO EN ESPAÑOL.

In (1b) and (1c), the roman (non-italicised) typeface suggests that the use of English in this segment of the sentence is normal, whereas italicisation and capitalisation single out the Spanish segment as somehow unusual or out of the ordinary. The same principle of transcribing in a manner which does not suggest that one language variety is more normal or appropriate than the other also applies to languages that are written using scripts other than the Roman alphabet. It is best if these are transcribed using their own writing systems and not Roman transliterations in order to retain the authenticity of the speech event, represent the naturalness of the multilingual product on behalf of the participants, and

Table 7.1 *Phases of thematic analysis (Braun and Clarke 2006: 87)*

Phase	Description of the process
1. Familiarising oneself with the data	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
2. Generating initial codes	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes	Checking if the themes work in relation to the coded extracts and the entire data set, generating a thematic map of the analysis.
5. Defining and naming themes	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
6. Producing the report	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

respect their cultural traditions. Any transliteration – and, of course, English translation – of such segments can and must be done when said segments are analysed. For examples of this practice, see Section 7.6.

Interview data are most commonly analysed qualitatively using thematic analysis (see also Chapter 10). The aim of thematic analysis is to identify, analyse, and report *themes* – that is, patterns that emerge from the interview data. Ryan and Bernard (2000: 780) define themes as 'abstract (and often fuzzy) constructs the investigators identify before, during, and after analysis'. Braun and Clarke (2006) conceptualise themes as capturing patterned responses that prevail within a data set (in this case, the corpus of interview transcripts) both in terms of the space that a given theme occupies within each data item (i.e. how much a given topic is talked about in each interview) and in terms of the occurrence of a theme across the different data items (i.e. in how many interviews within the data set is a particular topic discussed). Braun and Clarke (2006) also break down the process of doing thematic analysis in six helpful steps, or phases, as shown in Table 7.1.

Braun and Clarke (2006) further provide a very useful discussion of the various decisions that researchers doing thematic analysis need to take with respect to how they are going to approach their data. The most important one concerns epistemology, namely whether the data are approached from a realist/ essentialist/positivist perspective or from a constructionist one (Braun and Clarke 2006: 85; Codó 2008: 162; Heller et al. 2018: 86–87; see also Chapter 21). The

former approach assumes that 'it is possible to achieve a veridical or authentic account of a person's opinion (which treats such "things" as stable and fixed)' (Edley and Litosseliti 2010: 173). In language attitudes research, this would assume that participants' views and beliefs about language are inherent in them and, once they have been formed, remain largely immutable in the course of their lives unless external circumstances cause them to change. From such a point of view, the aim of the interview would be to uncover these underlying truths. Most contemporary scholars, however, reject this line of reasoning and adopt a more constructionist approach, which accepts that people's views and beliefs are constantly constructed, negotiated, and (re)constituted as they come to form part of their identities, and perceptions and projections of their selves (see also Chapter 1 for a more detailed discussion of the dynamic nature of language attitudes). The aim of interviews is therefore to gain insights not into what participants 'actually' feel, believe, or do in terms of language attitudes but, rather, into what they say they feel, believe, or do (Edley and Litosseliti 2010: 173). For the constructionist approach, then, social desirability bias does not constitute a problem as researchers are acutely aware, and in fact expect, that the multidimensional context of the interview will shape participants' responses. They will therefore analyse interview data with this in mind. This explains why any findings arrived at by means of qualitative analysis and interpretation of interview data are not generalisable to people and groups outside the sample of participants who were interviewed.

7.5   Further Important Considerations

Perhaps the most important consideration in conducting interviews to investigate attitudes is the choice not only of the language but also of the variety of that language that the researcher will use during the interview. This is because of the well-known fact that people often link other people's language with non-linguistic characteristics (see Chapter 1). The language a person speaks is routinely used as an indicator of membership to specific ethnic, national, racial, religious, regional, age, gender, or class groups. People who speak a specific variety or varieties of a language are similarly expected (or assumed) to have certain non-linguistic attributes: a high or low level of education, good or bad manners, high or low intelligence, a high or low socio-economic status.

In an interview setting, the choice of language (and variety) on behalf of both the interviewer and the interviewee can signal how they see themselves and the other, how each of them sees the speech event, their role in it, and their position with respect to the other part, or which aspects of their identity they want or feel they have to project. Researchers must be aware of these complexities and should strive to reduce the distance and any tensions that may be created by linguistic differences between them and their participants. For example, using the

interviewees' language (or variety) might be the only option available to researchers if interviewees are monolingual (or monodialectal). When interviewees and researchers share a language (or variety), the same choice might be seen by some interviewees as an acknowledgement of the value of their language (or variety). Others, however, might consider it to be inauthentic, appropriating, or an attempt at mimicry or even mockery. Researchers should therefore decide which language (or variety) to use for the interviews based on the research context at hand, taking into account their own and their participants' linguistic repertoires, and in consultation with participants at the very early stages of their work together.

It is not difficult to see how these dynamics can play out in interviews with participants who speak a language or variety that lacks overt prestige. Such speakers often encounter stigmatisation in the course of their lives, directed at them not only by monolingual/monodialectal speakers of the prestigious language (or variety) but also by bilingual/bidialectal speakers of the non-prestigious language (or variety) who are also competent in the prestigious one. It is therefore not uncommon to develop feelings of inferiority about speaking their language (or variety), and insecurity when they have to use the prestigious or dominant language (or variety) of the society and community in which they live. In a project investigating the use of stigmatised forms of language, it goes without saying that participants should be given the choice to use the language or variety they prefer in their responses.

This is, however, more easily said than done. It will undoubtedly be much easier to achieve if the researcher also happens to be a speaker of that language (or variety) and is therefore able to create a safe space for the interview to be conducted in that language (or variety). However, things will be complicated if the researcher is classified by the participant as a member of a sociolinguistically dominant group that speaks a more (overtly) prestigious language (or variety). Even if the researcher assures them that they should use any form of language they want during the interview without fear of judgement, stigmatisation, or discrimination, it is likely that participants will feel compelled to speak the prestigious language (or variety) in response to the formality of the speech event, to accommodate to the interviewer's characteristics, or to disassociate themselves from non-linguistic attributes that speakers of the non-prestigious language (or variety) are stereotyped to have. This has ethical, methodological, and analytical implications as this choice may limit not only the extent but also the content of participants' contributions. They might feel reluctant to talk about their personal experiences, feelings, and views with a speaker of the prestigious language (or variety) – or they might not want to talk about them in the same way, depth, and openness as they would if they were interviewed by a researcher who was 'like them'. Researchers need to be mindful of these issues and take them into account at all stages of their investigation, starting from the planning of the interviews, the preparation of the interview protocol, and later on during the analysis and interpretation of the interview data.

7.6   Case Study: Attitudes towards Cypriot Greek in the UK

The term *Cypriot Greek* refers to the non-standardised Modern Greek varieties that are spoken on the island of Cyprus. Cypriot Greek speakers who migrated from Cyprus to the UK brought with them the notion that Cypriot Greek is a rural and archaic form of language. which stigmatises speakers as impolite and uneducated. By contrast, Standard Greek, which is associated with Greece and especially Athens, is perceived as a modern, urban variety that makes speakers sound well-mannered and educated. People with a Greek Cypriot background in the UK additionally view Standard Greek as a language that unites them not only with the Cyprus homeland but also with Greece as the notional centre of Hellenism and with other Greek(-speaking) diasporas across the world. Cypriot Greek, on the other hand, is thought to be too regional and inaccessible to Greek speakers from a non-Cypriot background. In Cyprus, British-born Greek Cypriots are sometimes stereotyped as unsophisticated and backward-thinking, a group of people who are 'frozen in time' and preserve a form of language (as well as ways of living and thinking) that people in Cyprus have long abandoned. Some people in the diaspora therefore see speaking a 'strong' version of Cypriot Greek as confirming these stereotypes, and as reinforcing associations with the low socioeconomic status and level of education of many early migrants (Karatsareas 2018, 2019, 2021).

At the early stages of my investigation of these themes in London's Greek Cypriot community, I decided to conduct semi-structured interviews in order to enrich the understanding of the research context that I had built through reviewing the literature, to familiarise myself with the community and the experiences of individual members, and to identify potential avenues for further investigation (as discussed in Section 7.2). In preparing for the interviews, I put together an *interview protocol* as described in Section 7.3. Having as my starting point the research questions I aimed to address, I formulated a list of questions to ask my participants. In line with Castillo-Montoya's (2016) framework, the first step in that process was making sure that the interview questions aligned with the research questions, as shown in Table 7.2. In each case, I assessed whether a given interview question was necessary for my study, and I considered whether it would help my participants to explain their views on the status of Cypriot Greek compared to Standard Greek, and to talk about their own lived experiences of stigmatisation.

I recruited my participants through a Greek complementary school. A key factor in this process was the help I received from the school's headteacher, who acted as a gatekeeper (see Section 7.3): They introduced me to parents who brought their children to the school, voiced their support for my research, and provided me with rooms on the school grounds in which to conduct the interviews. The headteacher played a very symbolic role in shaping my participants' perspectives and in constructing the overall context in which the interviews came to be situated (see Section 7.2). When they introduced me to the parents and after

Table 7.2 *Aligning research questions and interview questions about Cypriot Greek in the UK*

Research questions	Interview questions
How are ideologies and attitudes towards non-standardised varieties manifested, reproduced, and contested in diasporic contexts?	Who do you speak Cypriot Greek with? When and where do you usually speak it? What about Standard Greek?
	What does each variety mean to you? How does speaking Cypriot Greek make you feel? What about Standard Greek?
	Can you explain these thoughts with reference to a personal experience of yours? Do you have any interesting life stories to share?
What role does community language education play in shaping, sustaining, and reinforcing attitudes and ideologies?	What is your experience of going to Greek school? Did you enjoy learning Greek there? What were some things you did not like?
	How did your teachers use Standard Greek and Cypriot Greek? How did they explain the differences between them?
	Which language do you think children should learn at Greek school? Do you think children should learn Cypriot Greek? Why? Why not?

stating to them that I was interested in 'how we speak here', they went on to mention two universities: the University of Cambridge, from which I received my doctorate, and the Open University of Cyprus, where I was working at the time as adjunct faculty. The former mention was meant to add authority to my profile as a legitimate and serious researcher, the latter to highlight the fact that, despite being originally from Greece (as was evident from my last name and the way I spoke Greek), I did have connections with Cyprus. Although motivated by their best intentions to convince parents to take part in my study, the head-teacher's introduction created the impression in some participants that they had to showcase their best Greek to me (which illustrates the problematisation of this issue in Section 7.5). This impression was reinforced by the fact that the school was the location where the interviews took place (see Section 7.3). Some of my participants had attended that school as children and knew it as an institutional space where only Standard Greek was allowed as the language of instruction, while pupils' use of Cypriot Greek in the classroom was discouraged and stigmatised (Ioannidou et al. 2020; Georgiou and Karatsareas forthcoming).

During the interviews, some participants engaged in efforts to avoid using Cypriot Greek features and tried to speak in Standard Greek. They also denied that they spoke or even knew 'heavy' or 'villagey' Cypriot, two labels that refer to the most basilectal registers of Cypriot Greek which are particularly associated with rurality. In Example 1, in which Cypriot Greek features are indicated in boldface, Stella denies several times that her family speaks a 'heavy' 'villagey' Cypriot (staves 2, 4, 6) but then goes on to produce a high number of Cypriot Greek features and provide examples of 'heavy' words (stave 4). Half-way through stave 6, she realises that she carelessly admitted that her mother does use 'heavy' and 'villagey' words so she quickly shifts away from describing her home environment to talking about her Greek education, listing the Greek qualifications she and her sister obtained, which serve as evidence of the properness of her Greek.

(1)   'I don't even know if I can talk like that'.

1	Petros	**Ίνταλος** μιλά ο **παπάς** σου;	**How** does your **father** speak?
2	Stella	We don't… we don't know. Ο **παπάς** μου **έν** μιλά βαρετά **που εννα** πάει έξω. **Εν** μόνο **που εννα** δει **χωρκανούς** ή συγγενείς. Έτσι **έρκεται** πίσω **τζιαι** you know… **Τζιαι** μιλά έτσι βαρετά αλλά **εν τζιαι τζείνος που εννα πάμεν** έξω ή **που εννα**… Έν θα… Έν **μιλούμεν** έτσι βαρετά βαρετά τα χωριάτικα.	We don't… we don't know. My **father** does**n't** speak heavy talk **when** he goes out. **It's** only **when** he meets **people from his village** or relatives. So he **comes** back **and** you know… He speaks heavy talk like that but **it's him as well when** we **go** out or **when**… We wo**n't**… We do**n't speak** like that really heavy talk the village talk.
3	Petros	**Ίνταλος** **ένι** τα βαρετά;	**What is** heavy talk **like**?
4	Stella	Πώς είναι τα βαρετά; To be honest I don't even know if I can talk like that. Ξέρω λέξεις σαν… Like **πούγκα** ή **μαβλούκα**. Ξέρεις την **μαβλούκα**;	What is heavy talk like? To be honest I don't even know if I can talk like that. I know words like… Like **pocket** or **pillow**. Do you know **pillow**?
5	Petros	**Όι**.	**No**.
6	Stella	Μαξιλάρι μαξιλάρι. Δεν ξέρω έτσι λέξεις σαν **τζείνες** αλλά… Διότι ήμουν σπίτι με την **μάμμαν** μου **που εμεγάλωνα** μεγάλωσα ώσπου να πάω σχολείο **τζιαι τζείνη** μιλ… Έν **μιλά** βαρετά χωριάτικη. Έχει χρησιμοποιήσει **χρησιμοποιά**	Pillow pillow. I don't know words like **those** but… **Because** when I was at home with my mother **when I was growing up** I grew up until I went to school **and she** speak… She does**n't speak** heavy talk village talk. She has used she **uses** heav…

βαρύτικ... βαρετές χωριάτικες λέξεις. **Που επήαμεν σχολείον ελληνικόν σχολείον ήμαστεν** μικρές και... Ε **νναι**... **Τζι εκάμαμεν τζιαι** τα GCSE μας **τζιαι** τα A-level μας κι έτσι **έν μιλούμεν** βαρετά no.

heavy village words. **When we went** to **school Greek school** we **were** young and... Yes... **We did** our GCSEs **and** our A-levels so we do**n't speak** heavy talk no.

Perhaps the most noteworthy instance in Stella's extract is how she standardised my language. In Extract 1, I ask Stella two questions (staves 1 and 3) and answer one question that she asks me (staves 5). In all three instances, I use Cypriot Greek, which I had previously stated that I can speak. I chose to do this in order to create favourable conditions for Stella to share her views and experiences in the Greek variety that she is dominant in. In stave 4, she uses this choice as an affordance to display her knowledge of Standard Greek but also to align my language with the image she has formed for me (a lecturer with a degree from a prestigious British university who comes from Greece and speaks the 'proper' type of Greek, someone who does not belong to the Greek Cypriot community). My question in stave 3 starts with two Cypriot Greek forms: ίνταλος ['iⁿdalos] 'how' and ένι ['eni] 'is/are'. At the beginning of her response, Stella repeats this question. In doing so, she replaces ίνταλος and ένι with their Standard Greek corresponding expressions, πώς [pos] 'how' and είναι ['ine]. The 'corrected' version Πώς είναι τα βαρετά [pos 'ine ta vare'ta] 'What is heavy talk like?' is the only utterance in her responses that does not contain any Cypriot Greek features, suggesting that one of her aims was to challenge the authenticity of my production and question the limits of my knowledge of Cypriot Greek.

Stella was not the only participant to use my speaking Cypriot Greek as an opportunity to construct their image as users of different varieties and registers of Greek. In Example 2, Anna reacts to my use of two forms, τζι(αι) [tʃ(e)] 'and' and εγιώ [e'jo] 'I' (stave 1), which are highly marked as belonging to the Cypriot Greek lexical stock on their basis of phonetic features (the [tʃ] in τζι(αι) and the [j] in εγιώ).

(2)   'Well, I don't say τζι εγιώ, let's put it that way'.

1	Petros	Σαν εσένα που θέλεις χρόνο να μου μιλήσεις Ελληνικά; Έτσι και... **τζι εγιώ** θέλω.	Like how you need some time to speak in Greek to me? In the same way **I** need some time **too**.
2	Anna	Well, I don't say **τζι εγιώ**, let's put it that way	Well I don't say **me too** let's put it that way.
3	Petros	Γιατί;	Why?
4	Anna	'cause that's not correct	'cause that's not correct
5	Petros	Ναι αλλά δεν είναι λάθος	Yes but it's not a mistake
6	Anna	**Τζι εγιώ**; No, I'm a believer in speaking correctly if possible.	**Me too**? No, I'm a believer in speaking correctly if possible.

What is interesting in this case is that my production seems to have been interpreted by Anna as part of an entrapment strategy. When we had spoken to set up the interview, she had confirmed she wanted to do the interview in Greek. During the interview, however, she found it challenging to use the language. Her responses were telegraphic, and she ended her contributions rather abruptly, hastening to move on to the next question. She also switched to English frequently. Assessing the situation, I decided it would be best to first encourage her to use Greek and reinforce her rather than suggest we do the interview in English. I did not want to give the impression I was impatient and that I did not give her enough opportunity to feel relaxed before she could start speaking in Greek. I also thought I would tell her that I also found it challenging to speak English sometimes as it is not my first language. At the end of the utterance in stave 1, I interrupted myself to say τζι εγιώ instead of κι εγώ to signal that Cypriot Greek could be used in the interview space we were constructing. Anna, however, seemed to think that I had used Cypriot Greek in order to make her speak in that way in the interview or to make her admit that she speaks like that. Her distancing from both these propositions could not have been given in stronger terms (staves 2, 4, 6). My use of Cypriot Greek on that occasion and in that context was judged to be insincere, a risk identified in Section 7.5. It is not easy to give hard and fast advice about how to manage uncomfortable or uneasy situations that may emerge in interviews (although see Heggen and Guillemin 2012, and Rapley 2012). In any case, researchers should always seek to minimise participants' discomfort and try to diffuse the tension created during such critical moments by reducing the intensity of their questions and moving smoothly to other, more comfortable topics as soon as the context allows.

Suggested further readings

Briggs (1986); Codó (2008); Dewaele et al. (2019); Edley and Litosseliti (2010); Gubrium et al. (2012)

8 Focus Groups

Michael Hornsby

8.1 Introduction

A focus group is generally composed of interacting individuals having some common interest or characteristics, convened by a moderator, who uses the group and its interaction as a way to gain information about a specific or focused issue. As a means of eliciting qualitative data, focus groups capitalise on the interaction among group members to enhance the collection of deep, strongly held beliefs and perspectives, and are generally associated with the research programmes of Paul Lazarsfeld, Robert Merton, and colleagues in the 1940s (see Merton et al. 1956/1990). While there is no one clear-cut definition of a focus group, it can generally be defined as including a semi-structured session with multiple participants, held in an informal setting, and moderated by a facilitator (and possibly a co-facilitator). The session is structured through the use of general guideline questions and/or other data elicitation stimuli, such as photos, and the information generated through this group interaction is recorded or noted down in some form or the other (Krueger and Casey 2009). As this chapter aims to show, the use of focus groups to document dominant discourses which circulate in relation to commonly held attitudes towards particular languages, or various aspects of language use or linguistic practices, can usefully inform the work of social and behavioural scientists, particularly when combined with other methods of data collection (see also Chapter 21). In particular, focus groups can help the researcher work out which language attitudes are specifically conceptualised as a stable (but not enduring) construct directed to a linguistic phenomenon within the speaker population, and which attitudes can count as variable and emergent forms of evaluative social practice around a language-related issue.

8.2 Strengths and Limitations

8.2.1 Strengths

The focus group approach, in line with most other methods used to elicit qualitative data, is especially useful for exploring new topics and for examining complex issues which involve values and beliefs that underlie

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behaviour, especially (as is the focus here) various linguistic practices linked to different language attitudes. Puchta and Potter (2002) have argued that attitudes are not so much fixed or stable, but rather are the end result of a series of analytic decisions. Indeed, this suggests that researchers should, in fact, be wary of thinking that there is any such thing as an attitude. Attitudes, they contend, are 'performed' rather than 'pre-formed' (Puchta and Potter 2004: 27). In a focus group setting, participants frequently change their minds about issues in the course of discussion, particularly where focus groups address a topic which they had not previously thought much about (Warr 2005). A focus group setting as a researcher encounter, then, can further be viewed as a 'site of performance' (Brannen and Pattman 2005: 53) in which statements about language can be produced within that particular moment and within that particular context, but which may then be contradicted or contested by the very people who made these same statements, either during the same session, or indeed, in other settings before or after the session in question. What focus groups excel at doing is allowing the investigator to study the processes of attitude formation and the mechanisms involved in problematising and/or modifying views. Unpicking the process of individual attitude formation would ultimately be best served by running a series of focus group discussions in order to monitor individual and group shifts over time. In exploring attitudes towards language, Yitzhaki (2010) has shown how focus groups facilitate more in-depth exploration of participant views than do more quantitative methods (such as questionnaires, see Chapter 9) while allowing for enough flexibility to restructure and manage the research site in order to focus on topic areas which might be absent or remain covert in, for example, an ethnographic project. Moreover, topics which could be considered too controversial or inappropriate to be raised by participants in unstructured interviews can be given a fairer hearing within a focus group setting.

8.2.2   Limitations

It is worthwhile bearing in mind that data generated about linguistic attitudes within focus groups cannot be taken at face-value. While they are particularly useful for the study of group norms and group understandings, and also offer advantages in terms of convenience and accessibility (particularly as ethnographic work is now much more difficult to undertake in private, late-modern societies), focus groups can be less suitable than individual interviews in formulating data on attitudes since there is an understandable tendency for atypical behaviours to go unreported or under-reported in group settings. If one of the expected outcomes of focus groups is to arrive at a group consensus on a given issue, deviant experiences or voices will often be silenced or unheard. Thus, when compared to individual interviews (see Chapter 7), focus groups may prove to be not as efficient in covering a particular issue in maximum depth. A particular disadvantage of a focus group is the possibility that the members may not express their honest and personal opinions about the topic under

discussion, since they may be hesitant to express their thoughts, especially when they feel they oppose the views of another participant. In a similar way, moderators can have an unexpected impact on the outcome of a focus group discussion. They may, intentionally or inadvertently, bring their own personal biases into the group discussion, resulting in inaccurate representations of the actual discussion. Moderators can also lead focus group participants into reaching certain assumptions or conclusions about an idea. Out of fear of going against the opinion of the moderator, or even not wanting to somehow disappoint the moderator, participants may not disclose their true and honest opinions. As O'Rourke (2011b) has noted, participants in a focus group can be tempted to feed off each other's ideas rather than express their own individual thoughts (O'Rourke 2011b: 332), though following Iglesias-Álvarez and Ramallo (2003), she notes this can be alleviated somewhat by analysing salient social representations in a communicative conversational situation. For further discussion of such disadvantages, see Chapter 7.

8.3   Research Planning and Design

Focus groups, a direct method of investigating language attitudes, are characterised by the asking of direct questions about language evaluation, preference, etcetera. In this approach, it is not the researcher who infers attitudes from observable behaviour, but the participants themselves who are asked to reflect on their own attitudes (see Chapter 1). As far as attitudes towards language are concerned, Macnaghten and Myers (2004: 65) point out that the use of focus groups is particularly pertinent in exploring 'shared and tacit beliefs and [...] the way these beliefs emerge in interactions with others in a local setting', most especially when researchers 'are not entirely sure what categories, links and perspectives are relevant'. Thus, focus groups are most helpful to the researcher when they approach the topic to be explored in a flexible manner, with general research questions of what they might hope to find the answers to, but with an openness to being surprised by the data produced and willing to be participant-led in the direction the subsequent questioning and the subsequent data produced takes.

Participant recruitment is a factor which needs careful consideration. Widely circulated invitations to take part in a particular focus group are an effective way of ensuring that the sample of respondents is as extensive as possible, as is often the case with larger-scale survey procedures. Atkinson and Kelly-Holmes (2016), for example, report that the participation in the focus groups for their study on attitudes towards the Irish language was on the basis of a response to a widely circulated invitation sent to the students on Humanities undergraduate courses, without any filtering mechanism designed to control any variables. They note that this method probably has a strong element of self-selection: 'the invitation may have attracted the attention of potential participants who felt

particularly strongly about language in general and/or Irish' (Atkinson and Kelly-Holmes 2016: 204). In general, focus groups generally utilise convenience sampling in recruiting their participants. In this way, the sample for a focus group has individuals with specific characteristics of the research population and who can contribute more easily to helping the research gain a greater understanding of the topic under investigation. Franz (2011), for example, recommends purposeful selection of group participants, who should share some characteristics in common, such as occupation, social class, level of education, or family background, since 'people tend to censor their own ideas when faced with opposition' (Franz 2011: 1381). The organising moderator needs to take these factors into account when planning these aspects before convening the focus group.

A successful focus group setting is appropriately moderated, with a suitable moderator exercising mild, unobtrusive control, demonstrating adequate knowledge of the topic under discussion, and very importantly, one who can relate easily to the participants (through having a common background or a discernible and shared interest in the focus of the group discussion). If resources allow, it is a very good idea to have an assistant moderator on hand, who can handle logistics, take careful notes, and who is available to monitor recording equipment (see below for issues associated with recording the proceedings). It is important that the moderator is mentally prepared – in other words, is present in the moment by being alert and free from distractions, has the discipline of listening, and is familiar with the questioning routine. It is furthermore essential that the moderator is also adept at using purposeful small talk to add cohesion to the focus group process, in order to create a warm and friendly environment which will foster the exchange of opinions and views in a safe space.

The process should start with the moderator making a smooth and concise introduction, making sure to include the following elements:

1.   Welcome
2.   Overview of the topic
3.   Ground rules
4.   First question

Unless there are good reasons otherwise, the use of open-ended questions (i.e. questions that cannot be answered with a short 'yes' or 'no' type answer) is recommended. The moderation needs to engage in facilitating skills in order to keep the discussion following, but also allowing the participants to spend time reflecting and formulating their answers. Such skills include the use of pauses (a five-second pause after a question, and before elaborating further, often gives the participant time to reflect appropriately), and probes (such as 'Would you explain further?', 'Could you give an example?' or 'I don't understand') allow the researcher to obtain data which goes beyond the mere impressionistic. Reactions to the participants need to be carefully considered and verbal and non-verbal cues should be made by the moderator in awareness: Head nodding is encouraging if done in moderation, and any verbal responses should be short and

non-disruptive in nature – and the moderator is advised to avoid using phrases which could be seen as judgemental (such as, 'that's good' or 'excellent').

The moderator should also be aware of their role as group discussion manager and exercise subtle group control to ensure all voices are heard. Often, focus groups can be dominated by 'expert' or dominant speakers, and shy participants might need some facilitating in having space for their opinions to be heard. It is also important for 'ramblers' to be appropriately managed, so that the agreed focus of the group discussion is adhered to, while allowing participants the freedom to suggest divergent directions that the moderator might not have initially considered, and which allow perhaps a more comprehensive view of the issue at hand than might previously have been envisaged. The way the focus group is concluded is important. Generally, a three-step conclusion can often feel most appropriate, with an initial summary/confirmation of the proceedings, a review of the focus group purpose (checking carefully with the participants if anything has been missed), and then a word of thanks and a dismissal (Krueger 1998).

The moderator should strive to be a reflective practitioner, and realise that their very presence and their own attitudes, as well as training and inherent personality, could lead to moderator bias. Moderators who display an intrinsic interest in the research topic, openness, a sense of humour, sociability, an ability to listen, and a certain air of neutrality are more likely to encourage participants to express their opinions than other moderators. Certain of these qualities are needed in different combinations, depending on the particular research topic and the needs of the participants. One solution which has been proposed to circumvent moderator bias is the *serial moderating technique* (SMT), which sees a series of several moderators in succession leading the same focus group over the course of the session. In SMT, three to five moderators are employed in timed intervals that can range from twenty to forty minutes, with the moderators being selected to interact with the focus group participants in distinct ways. In practice, this means that the actual session is broken down into a series of mini focus groups. In this way, it has been claimed that SMT produces content which provides a richer insight than with the use of one single moderator for a focus group session (Prince and Davies 2001: 212–213).

Participants need to be informed about the topics that will be discussed and who else will be participating in the group so that they can make an informed decision beforehand about taking part. This is especially important for research that will touch on sensitive topics and those that are considered more than minimal risk. With regard to attitudes towards language, this is particularly important when the topic of discussion involves linguistic varieties which are generally associated with marginalised or vulnerable groups. Negative attitudes towards particular language varieties often mask negative attitudes towards the speakers of these varieties (see also Chapter 1), and participants should be assured that such negativity will be sensitively and professionally handled, should it arise during the course of the group discussion. Participants should

also be informed if the session will be audio- or video-recorded, what will be done with these recordings, and how they will be stored and for how long. If audio or video from the focus groups will be used for something other than data analysis for the approved protocol (i.e. future studies, educational purposes, conference presentations, etc.) then group participants must explicitly consent to this in the written consent form. Finally, the nature of a focus group is such that confidentiality cannot be guaranteed. The researchers must provide participants with the procedures in place to maintain confidentiality of the research data and they must inform participants not to repeat what has been said to others in the focus group. For research that is minimal risk, adding a paragraph to the informed consent detailing issues of confidentiality for focus groups will suffice. Of course, in the case of research taking place under the auspices of an educational or public institution, the latter will have procedures, etcetera, in place, which the researcher will have to adhere to. The discussion here has focused on general principles, which will need to be teased out more fully in specific institutional and cultural contexts, including seeking institutional ethics clearance where this is required.

8.4   New or Emerging Trends

It should be noted that online focus groups investigating attitudes have begun to be used in a number of research contexts (see e.g. Sun and Goodyear 2020 for the use of an online focus group as part of the methodology for eliciting views on language learning). Hosting a real-time focus group requires a virtual venue such as a chat room. Online focus groups have a number of advantages over conventional focus groups, not least that they are economical to run, in particular since they entail no attendance costs and no audio transcription costs as participants participate through the written medium. Time limitations are minimal since participants are able to respond at a time and a place of their own choosing. Moreover, geographical considerations are considerably reduced since participants do not need to be physically in the same location to take part. A further advantage is that a number of different lines of discussion can be introduced at the same time, since the participants are in control of their level of participation at any given time and can make appropriate choices of when to participate, depending on their own availability (Bloor et al. 2011). Some initial work in this area by Mason and Davis (2007), for instance, has looked at how stance-shift analysis can be used to identify crucial opinions and attitudes in online focus groups. Moderating synchronous focus groups requires comparatively fast typing skills and some experience with the style of real-time discussion. Challenges include the dynamic and very fast pace of the interactions: 'in the real time chat of an online focus group, the distinction between replying and sending becomes blurred as the interactivity defies conversational turn-taking' (Mann and Stewart 2000: 102).

An even more recent development is the use of online platforms which can host up to 1,000 people through live video on a single call, though a typical focus group setting would only include between five and ten participants. Online platforms are less expensive than utilising a focus group facility since travel and accommodation costs do not have to be taken into account (although obviously a software licence or membership fee to use the online platforms may be payable). However, the literature offers little advice on this aspect, other than suggesting hiring a virtual facility or using costly conferencing software packages (Mann and Stewart 2000).

By conducting focus groups online, the research is not hindered by location. Participants can be located anywhere in the world. As long as they have an internet connection, they can be present for the focus group in an online setting. However, disadvantages exist as well. Without being face-to-face in a physical room, the moderator may fail to notice non-verbal cues. Face-to-face focus groups would allow for the moderator to notice non-verbal cues indicating that a participant may be confused or uncomfortable. It is also more difficult for participants to interact with one another and prompt side-discussion that can provide unprompted insight. Interruptions, which can be handled naturally in a physical setting, might prove awkward in an online setting since these can lead to cut-offs and awkward silences. Moreover, online focus groups might not be a desirable or indeed feasible option in the case of groups of speakers who are socially and economically disadvantaged such as migrants, refugees, or other marginalised groups.

Other innovations include considering the settings and methodologies of the focus group. Thompson et al. (2017), for example, creatively employed certain visual methods in a spirit of experimentation and risk-taking. They set up a room as a mock television studio for their participants (in this case, children) and managed, as a result, to elicit a number of strongly voiced narratives. The creation of new and potentially more complex accounts was made possible by the longitudinal nature of their study. *Networked Virtual Reality* and *Graphical MUD*s (multi-user domains) offer both synchronous text communication and a graphical representation of the environment (Stewart and Williams 2005), and this could be an attractive platform for a number of different target audiences. Finally, Wooten (2017) has advocated using performance-based focus groups (PBFGs), involving the physical engagement of participants' bodies, in the form of theatrical exercises and this incorporation of the body throughout the process of data generation allowed for insights into the goals and desires of the participants, non-native teachers of Spanish.

8.5   Data Analysis and Interpretation

Barbour (2007: 113) has noted that focus group participants 'make supportive comments, encourage each others' contributions, and even, on occasion, assume the role of "co-moderators"'. As a result, the moderator should be

open to this possibility (and not threatened) when participants begin the analytic process by providing commentaries, noting shifting perspectives or teasing out subtle differences in meaning or emphasis over the course of the focus group session. Barbour (2007: 113) further advises the researcher: 'Do start to theorize tentatively and invite participants to join in, but be careful to explain or rephrase academic/theoretical terms. Remember that you can ask participants to speculate along with you – you don't have to take the role of "the expert"'.

With any data generated from a focus group session, the aim is to represent them fully and faithfully, and to move beyond the purely descriptive by analytically studying the patterning in the data. It is important to transcribe the proceedings verbatim. A verbatim transcript represents every spoken word, exactly the way it was originally delivered, including non-verbal utterances (or fillers) such as 'umm', throat clearing, laughter, or even silence. Include ambient sounds, such as doors opening or background voices, in parentheses. The transcript should not be 'cleaned up' or censored. If a focus group participant uses swear words, non-standard language, or mispronounces or misuses words, the researcher should avoid the temptation to correct this when transcribing. The correct version of a mispronounced word can be placed in parenthesis within the transcribed document, for purposes of clarity. There are two ways to carry out the transcription. For manual transcription, an audio or video file is played and the researcher types up and what is heard in a suitable editing programme. For automatic transcription, an audio or video file is uploaded to a specified software programme, and the system (which can be online) can produce a transcript in just a few minutes. Then the machine-generated transcript can be edited in the same way as transcribing a recording manually. Roth (2015) offers a particularly useful summary of transcription conventions.

Effective analysis consists of more than simply plucking themes out of the participants' narratives; it involves more a process of interrogating the data, contextualising the comments, establishing preliminary explanations, and subjecting these to further interrogation and refinement (Barbour 2007: 26). In order to do this, the raw data need to be transcribed, and they need to include all speakers and all speech – even that which is interrupted or left unfinished, which should be appropriately annotated as such in the text. Speakers need to be effectively identified within the transcript, as far as this is possible. Special attention needs to be paid by the researcher to the readability of the data and the presentation of the specific context which the reader will need in order to make sense of the data presented, particularly for any extracted speech excerpts. The data should also be indexed, so that all relevant data pertaining to a particular theme can be easily retrieved, either manually or by using an appropriate qualitative data computer programmes (Barbour 2007: 72).

Each piece of data needs to be coded appropriately and descriptively. Coding categories do not necessarily need to be external to the data (i.e. taken from the field of research or the topic) but can arise naturally from the data themselves. Ritchie and Spencer (1994) call these external codes *a priori codes*. Just as

importantly, codes can be highlighted by the participants themselves in the course of the session; Kelle (1997: 5.3) has called these *in-vivo codes* and describes them as 'theories of members of the investigated culture'. This reliance on categories generated by the participants themselves has been described as a 'grounded theory' (Glaser and Strauss 1967) approach to data analysis. When considering these categories, as part of the subsequent analysis, it is important to identify the linkages between them and attempt to classify them under broad themes. Categories can appear under more than one theme, of course, and this need to be noted. Similarly, any section of text can be assigned as many codes as appropriate – codes can be coterminous (i.e. the same scope, range of meaning, or extent in time), nested (i.e. the code is fully contained within a code of the same kind), or overlapping (i.e. partially contained in a code of the same kind). For example, some codes which emerged in the author's work with speakers of Breton, Yiddish, and Lemko (see Section 8.7) were coterminous (when research participants referred to 'legitimate' or 'authentic' language) or nested (when 'authority' to speak on behalf of the minority language community was fully contained in the overarching code of 'legitimacy') or overlapping (when participants would refer to language 'ideologies' or 'attitudes' in similar ways, but when stated attitudes seemed to be contrary to actual language behaviour (because of internalised ideologies), we can see that the codes of 'ideology' and 'attitude' overlap to a certain extent). Overall, the coding frame needs to be flexible and adaptable, and as part of the process, the researcher should be prepared to add, remove, or rename themes and categories, or indeed reallocate categories to other, more appropriate themes. Finally, it should be noted that coding is, as Barbour (2007: 127) highlights, a 'messy process', but this is actually useful for data analysis because:

> qualitative methods provide insights into the highly sophisticated social constructions employed by respondents, including the many contradictions that become apparent and the distinctions or qualifications that they make along the way. That data cannot be slotted, once and for all, into a neat coding frame is not, however, a limitation of focus group research; rather it testifies to their unique potential to elaborate and provide a deeper understanding of the processes that underpin the development of views and collective identities.

For more information on qualitative coding, the reader is encouraged to consult Saldaña (2015).

8.6   Further Important Considerations

The use of focus groups in cross-cultural contexts can involve international research conducted outside of the researcher's own country but also domestic research conducted with a sub-group of the population whose

language(s) and/or cultural background(s) are different from those of the researcher. In such contexts, appropriate cultural sensitivity involves becoming familiar with the cultural norms of the study population, assessing how these may interlace with the research tasks at hand, and adapting them to make sure they are culturally appropriate for the group participants. The researcher should therefore be open to tacit learning and flexibility in noticing issues as they arise, and respond appropriately. This can often be a steep cultural learning curve for the researcher or research team, and continual attention needs to be paid towards required cultural adaptations over the course of the whole research process (Hennink 2017: 60). Hennink (2017: 64) has further pointed out that such considerations need to be built in right from the start: The study design needs to take into account any cross-cultural adjustments necessary (with input from e.g. a cultural advisory group); whether data collection needs similar adjustments, in the form of the presence of language assistants or specific field training and group facilitation considerations; and the need for cultural sensitivity when undertaking data preparation and interpretation, together with writing transparency and taking care when reporting participant quotations.

For a detailed discussion of conducting focus groups in signing communities, see Chapter 18.

8.7   Case Study: Attitudes among New Speakers of Minority Languages

In Hornsby (2015), I discuss the use of focus groups (among other techniques) to generate data with three different linguistic minorities – Bretons in France, Lemkos in Poland, and Yiddish speakers in the UK. Bretons originate from Brittany, north-west France, and constitute an important diaspora community in most major cities in France, as well as in North America. Despite no official recognition by the French state (and therefore no official statistics regarding the number of Breton speakers), the latest estimate considers that there were more than 200,000 speakers in 2018 (Région Bretagne 2018). The language is generally considered severely endangered. Lemkos are recognised as an ethnic minority in Poland and numbers in the community are estimated to be between 10 and 50,000 (Hornsby 2015: 26), the majority of whom are not active speakers of the Lemko language, an eastern Slavic variety, closely related to Ukrainian. Yiddish, a High German-derived, hybrid language, historically spoken by Ashkenazi Jews, saw its numbers of speakers decimated by the Shoah. The situation was considerably worsened by the suppression of Yiddish in Israel, by violent Stalinist repressions in the Soviet Union, and by massive language shift towards national languages in western countries. Yiddish has witnessed a rise in symbolic and sentimental reattachment among western diasporic communities, despite it being considered a severely endangered language.

I wish to emphasise here that my interest lay not so much in the attitudes towards the languages under consideration, but the sociolinguistic profile which most of my research participants shared, namely their 'newspeakerness', or the fact that they had adopted the languages in question as part of their linguistic identity. The term *new speakers* is not unproblematic, but is nevertheless in general currency in a number of minority language settings: 'nuachainteoir' in Irish, 'neach-labhairt ùr' in Scottish Gaelic, 'nou parlant' in Catalan, 'neofalante' in Galician, 'euskaldunzaharra' in Basque, and 'brezhoneger nevez' in Breton, to take just a few examples (Hornsby 2015: 2). Generally, the term is taken to mean an individual who has adopted a language as the main language or as one of their main languages of socialisation in adulthood, and who has acquired the language later on in life, rather than in early childhood. This adoption is often associated with issues of identity. As such speakers gain critical mass in some communities, tensions may emerge about their role in language revitalisation centred on issues of authenticity, legitimacy, hierarchies, and power relations within the minority language communities in question. Furthermore, their speech may be perceived as (considerably) different from traditional speech.

In Hornsby (2015), I describe how time constraints made the use of focus groups the most convenient method of data collection, based on the processes described in O'Rourke (2011b: 332). This involved contacting key *gatekeepers* of the three language communities I was keen to investigate from a critical sociolinguistic perspective, who then put me in touch with already constituted groups, who agreed to be interviewed by me. This follows the convenience sampling approach mentioned above. In each case, the focus group was to be found in an educational setting: a class in a Breton-immersion school, an undergraduate group of Breton-speaking students, a university class studying Russian and Lemko philology, and a Yiddish evening class for adults. Focus groups are not only efficient in generating data for the researcher, they can also appear attractive for the participants themselves. I quickly found that using focus groups took the pressure off individuals, more so than in a face-to-face interview, where the participant might feel compelled to speak, to say anything to move the interview on or to say something which does not really give a full picture of the participant's opinion or attitude. It is, of course, up to the moderator to draw the participant out more in such cases, but this makes the whole process so much more laborious. I would argue that, in a focus group setting, when a participant does actually venture an opinion, it is likely to be something that they feel (fairly) strongly about, rather than just speaking to break an awkward silence. The flip side of the coin here is that the moderator does need to take into account those more reticent participants who have not said much during the session and to ensure space for a variety of voices and opinions (Hornsby 2015: 31–32), such as the young speaker of Breton in one of my focus groups who stood out as being the only one to experience difficulty when conversing with older speakers (Hornsby 2015: 44). It is important that her experience was noted as much as that of the other participants.

Despite these caveats, the use of focus groups in these settings still felt appropriate since, as Heller (2011: 44) puts it, focus groups are, in fact, *situated performances*: 'They are what a certain kind of person tells another certain kind of person, in certain ways, under certain conditions'. The researcher thus can obtain 'a sense of participants' life trajectories and social positioning, data that can help explain the interests they have in doing things in certain ways [. . .] or supporting or imposing certain things' (Heller 2011: 44). Focus groups are, I would argue, an excellent way of tapping into the dominant discourses which are circulating among certain groups of speakers at a certain point in time and the data generated are of value for revealing 'at least as much [. . .] how such [participants] portrayed their bilingual lives as [. . .] how they may have lived them' (Heller 2011: 43). Moreover, for practical reasons, bringing together a group of people who had the commonality of experience of learning the minority in question and who, to varying degrees, were invested in becoming or who had become (new) speakers of these languages was a very efficient way of gaining access to the main discourses circulating in these communities of practice which the participants had themselves formed prior to my contacting them.

The data, generated from general questions about the experience of being a 'learner' of one of these minority languages, once subject to analysis, revealed four major themes (or codes) which occurred time and again: 'authenticity', 'legitimacy', 'hierarchy', and 'power relations', though these categories were hardly ever, if at all, described in these terms by participants. Instead, the focus group members would talk about 'authentic language' or 'authentic culture' in their particular settings and what that meant to them – or what they had been told it should mean. They described how they managed to achieve (or not) a sense of legitimacy as a new speaker of Breton, Yiddish, or Lemko by discussing issues such as their accent in the minority language, or the mistakes they might sometimes make when speaking. It was important to also note non-verbal cues when working with participants. The code 'hierarchy' (and the nested code of 'ownership') was applied through noting the turn-taking group members participated in in two of the groups – some members took up more time than others when answering questions, and while this, of course, could be due to personality factors such as confidence or shyness, it became clear that the group accorded more legitimacy to these more prominent members because they were more fluent speakers in the minority language. Struggles over legitimacy and authenticity, where speakers conceded 'authority' (a nested code in this particular strand) to others, or engaged in self-legitimisation in order to justify their status as a speaker of the minority language were coded under 'power relations'. More details of these four major codes, and how they emerged in each of the settings (and across them), are given in the vignettes presented below.

In the minority language communities I engaged with, these issues of attitudes towards variation within the three minority languages soon came to the fore during focus group sessions. My questions posed to members of the focus groups I worked with centred on their experiences of being a 'learner' of the languages

in question. The label of 'learner' proved to be problematic for a number of reasons. When working with a group of Lemko students in Kraków, Poland, for example, some of the participants were a lot more reticent than others. As the session progressed, it became apparent that two group representatives were able to take on a level of authority that was not evident for the other participants. It turned out, via personal narratives, that the two women had traditional links to Lemko-speaking communities and were perhaps more heritage rather than new speakers, the designation new speaker being a more accurate description for the other participants in the group. In Brittany, in a focus group at the University of Rennes, a noticeable distinction arose between the minority of students educated through the Diwan (immersion system) and students who had acquired Breton in other ways. The minority of former Diwan students were in fact the more vocal, expressing well-defined, clear opinions about their status as speakers of Breton and, in one case, expressing their frustration when talking to other new speakers whose linguistic skills were not as advanced as their own. Non-immersion-educated students generally seemed content to allow the ex-Diwan pupils to act as spokespeople for the group as a whole. Another focus group in Brittany consisted of Diwan secondary school students in Le Relecq Kerhuon, a small town outside Brest in Western Brittany and thus, unlike Rennes, in the traditional Breton-speaking area. The pupils made much more reference to family and neighbour networks where they would hear and use Breton. Thus, the location of the site where the focus group takes place also needs careful consideration and needs to be taken into account when analysing the data generated.

Securing entry to a minority language community in order to conduct a focus group is another important consideration. For example, I gained access to new speakers of Yiddish through their teacher in Edinburgh, Dr. Heather Valencia, who had been my own teacher of Yiddish in another setting some years before. I spoke to a dozen or so learners of Yiddish who regularly turn up once a week for lessons in the home of one of the participants. As the overall group was rather large, I organised my visit by arranging to see small groups of them together as focus groups. The majority of participants were assiduously learning, or engaging with, Yiddish as a heritage language. A number of them revealed they had family members who they remember speaking Yiddish when the participants were children. One participant's father, a native speaker of Yiddish, was still alive and apparently it was difficult for the participant, even now, to persuade his father to talk to him in Yiddish, without his father giving up or being overly critical. Interestingly, a small number of participants were not from a Yiddish-speaking or even a Jewish background and the way they talked about the language was different. There appeared to be less emotional attachment to the language and much more intellectual and linguistic curiosity on their part. I was thus, thanks to my previous contact with the teacher of the group, who acted as a kind of gatekeeper, arbitrating access to what we might view as a Yiddish community of practice in the heart of Edinburgh, containing people from a wide

variety of backgrounds, and having different degrees of previous contact with the language. That this was a pre-existing group actually proved to be an advantage as far as data generation was concerned. It has been argued that the notion that focus groups must consist of strangers is one of the myths associated with focus groups but, as Bloor et al. (2011: 22) have noted, the advantages of discussions involving pre-existing social groups are being increasingly recognised, both at the practical and at the epistemological levels.

A further interesting point which arose in a Breton focus group was an apparent delegitimising discourse *among* new speakers of Breton towards other new speakers. In essence, there was a degree of discomfort among some more confident new speakers of Breton about using the language with less-proficient users: 'There are some discussions where it's just a lot easier to have the conversation in French' (Hornsby 2015: 44–45). This observation reinforces one of the main themes that emerged from the research described here – power differentials and how these are lived by new speakers of minority language – namely, that (negative) attitudes towards particular varieties can in fact indirectly refer to the speakers of these varieties.

Overall, the use of focus groups in all of these settings was extremely useful for the project I was engaged with at the time, the results of which are reported in Hornsby (2015). They allowed me to access different language settings relatively easily, and to generate data concerning attitudes towards the minority languages I was working with, particularly with regard to how new developments in these languages were viewed, and how the status of so-called 'new' speakers was regarded in the different settings. While focus groups are a particularly expedient way of delving further into individual and collective attitudes and discourses which are held within particular language communities, they are, as previously mentioned, situated performances which participants tell on a particular day to other people in the focus group, with associated group dynamics coming into play as part of the narratives produced. These focus group interviews 'need to be understood for what they are and analysed accordingly, and that they will generate the most useful data when it is possible to understand what they mean to participants' (Heller 2011: 44). The way to understand what they mean to participants is through the use of additional means of data elicitation, such as individual interviews (which will be free from the pressures of group dynamics, but which will also lack the lively exchange of ideas which focus groups can provide) or through participant observation, during which the researcher will hear unprompted attitudes and opinions in a variety of settings. Otherwise known as triangulation, this approach allows the researcher to consider the phenomena under study in a specific way and that attention should be paid to the theoretical differences between the methods employed (see Chapter 21). Triangulation thus systematically allows for a broad and deep understanding of the phenomenon under consideration (Caillaud and Flick 2017: 156). It is then up to the researcher to make sense of all these elements in order to draw an outline of the main

attitudes circulating in a particular linguistic setting, and to remember that any research which is produced is, 'in the end, a story we tell, one for which we must find our own voice and for which we must take our own responsibility' (Heller 2011: 46), as well as a responsibility for representing the narratives of our research participants as fairly as possible.

Suggested further readings

Barbour (2007); Barbour and Morgan (2017); Brugge et al. (2009); Greenbaum (1998); Krueger and Casey (2009)

9 Questionnaires to Elicit Quantitative Data

Ruth Kircher

9.1 Introduction

The questionnaire has a long tradition of being employed as an instrument of attitude elicitation, and early on in the development of language attitudes as a field of study, this method attained 'a high level of sophistication and formal development' (Agheyisi and Fishman 1970: 147). Over time, the questionnaire has thus become one of the most frequently used methods in language attitudes research.

Questionnaires constitute a direct method of attitude elicitation in the sense that they involve posing explicit questions to obtain self-reports concerning participants' feelings, beliefs, and/or behaviours regarding language. There are two types of questions that can be used to do so: *open-ended questions*, which allow respondents to phrase their answers in their own words, and which thus yield qualitative data;[1] and *closed questions*, which provide a set of possible answers from which respondents can choose, and which therefore generate quantitative data. This chapter focuses on questionnaire research using closed questions to elicit quantitative data; however, it should ideally be read in conjunction with Chapter 10, which discusses the elicitation of qualitative data by means of open-ended questions.

9.2 Strengths and Limitations

9.2.1 Strengths

The strengths of questionnaires include the fact that they are easy to distribute and collect, which means that in a relatively short amount of time, much more data can be gathered from a much larger participant sample than it is possible to interview or observe within the same time period (Garrett et al. 2003; Rasinger 2018). Questionnaires are thus not only practical but also cost-effective. They constitute a very useful measure for eliciting information on language-related behaviours that would be much more difficult – or even impossible – to

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1 While data obtained by means of open-ended items tend to be analysed qualitatively, it is also possible to analyse such data quantitatively. This can be done, for example, by employing corpus-based techniques (e.g. Kircher and Fox 2021; Kutlu and Kircher 2021; see also Chapter 10).

observe or record in another way (Meyerhoff et al. 2015). Moreover, question-naires allow for the elicitation of information pertaining not only to the conative component of language attitudes, but also the affective component (e.g. by asking about feelings regarding particular languages) and the cognitive compon-ent (e.g. by asking about beliefs concerning the users of particular languages) – as well as correlations between the components (see Chapter 1 for a discussion of the components of language attitudes). Questionnaires can thus be used effect-ively to investigate a wide range of issues concerning language attitudes.

The particular advantages of questionnaires that use closed questions to elicit quantitative data include the ease and efficiency with which data can be scored, fed into databases, and then analysed and compared across participant samples (Krug and Sell 2013). This allows for generalisations to an extent that the findings of many other methods do not. Moreover, the use of closed questions with their limited number of response options is expedient because it ensures that respondents focus on the particular issue the researcher is interested in, rather than addressing anything else – as might happen, for instance, with open-ended questions, in interviews, or in focus groups. Employing questionnaires that use closed questions is thus a 'systematic, rigorous, focused, and tightly controlled' way of eliciting language attitudes that has the advantage of 'involving precise measurement and [if the questionnaire is well-designed] producing reliable and replicable data' (Dörnyei 2007: 34). In many contexts, the strengths of question-naires are therefore considered to outweigh their limitations.

9.2.2   Limitations

The limitations of questionnaires include the influence of question order on responses to standardised questions concerning language attitudes. Question wording also has an effect: If questions are too simple, respondents are likely to get bored; whereas if questions are too complex, respondents may find them overly demanding – and both boredom and high demand can lead respondents to simply leave questions blank (Agheyisi and Fishman 1970; Schleef 2014). Moreover, if respondents misinterpret questions, the researcher is unable to correct such misunderstandings. Consequently, careful questionnaire design is crucial.

Another notable drawback is that questionnaires are often not considered ideal in research with deaf signers. This is the case not only when written language is used, but also when signed videos are incorporated. For a more detailed discus-sion of this, see Chapter 18.

A further drawback of questionnaires is that researchers cannot be sure about the accuracy of respondents' self-reported socio-demographic characteristics. Self-reported information regarding language and linguistic behaviours also does not always reflect points of interest, such as language usage patterns, fully and accurately. Sometimes, this is because respondents simply do not possess the necessary degree of introspection (Meyerhoff et al. 2015). Other times, it is due

to *acquiescence bias* – that is, respondents' inherent tendency to agree with statements. The unreliability of self-reported data can also be due to *social desirability bias* – that is, respondents' conscious or unconscious desire to put themselves in the best possible light by responding in a manner that is socially desirable, or at least acceptable (Baker 1992). However, it should be noted that, as a result of the anonymity offered by questionnaires, the likelihood of responses being affected by acquiescence and social desirability biases is at least lower than it is for face-to-face methods such as interviews and focus groups (Garrett et al. 2003).

A particular limitation of questionnaires that employ closed questions to elicit quantitative data is that interesting issues unforeseen by the researcher cannot come to the fore (Baker 1992). Moreover, by averaging out responses across participant samples, a certain lack of depth is unavoidable because one cannot 'do justice to the subjective variety of an individual life' (Dörnyei 2007: 35). Some researchers also argue that quantitative questionnaire data only offer 'a snapshot of the process under study' (MacIntyre 2007: 572) and therefore fail to fully reflect the dynamic nature of language attitudes (see Chapter 1 for a discussion of this). However, it is arguable whether and to what extent other methods can do this.

9.3   Research Planning and Design

When a researcher decides to use a questionnaire, they should have a clear idea of their research aims, questions, and hypotheses before they begin developing their research instrument (see e.g. Meyerhoff et al. 2015 for a detailed discussion of this). This, and the relevant knowledge about language attitude theory (e.g. Chapter 1), are prerequisites for effective questionnaire design.

Moreover, before constructing a questionnaire that uses closed questions to elicit quantitative data, it is recommended that researchers conduct a pilot study with a questionnaire that employs at least some open-ended questions. The responses to the latter should be used to inform the content, wording, and answer options of the closed questions in the final research instrument (see Chapter 10 for a more detailed discussion of pilot studies as well as sampling pertaining to both pilot studies and final questionnaires).

9.3.1   Question Types

Closed questions – sometimes also referred to as 'items' – usually consist of a question or statement, instructions, and several possible answers. There are various kinds of closed questions.

Polar questions are items which invite a simple true/false or yes/no-type answer. They can be used when researchers are interested in binary decisions. For example, in Quebec, Canada's only province where Francophones constitute

the majority and Anglophones are a minority, one might ask a question as in Example 1:

(1) Do you ever speak French?
    Please tick the appropriate box.
    ☐ yes
    ☐ no

However, the use of such items is rare because of the lack of detail they reveal. In most cases, when researchers want respondents to choose one possible answer option, *multiple-choice questions* are more suitable because these provide several different answer options and thus lead to more nuanced findings – as can be seen in Example 2:

(2) In an average week, how often do you speak French?
    Please tick the appropriate box.
    ☐ always
    ☐ at least once a day
    ☐ at least once a week
    ☐ less than once a week
    ☐ never

It is also possible to use *checklists*, which allow respondents to select as many answer options as they wish – as in Example 3:

(3) In an average week, with whom do you use French?
    Please tick the boxes for all options that apply.
    ☐ with family members
    ☐ with friends
    ☐ with acquaintances in my neighbourhood
    ☐ with work colleagues
    ☐ with strangers
    ☐ with other people (please specify: _____)
    ☐ with no-one

For items of all these kinds, it is important that the answer options do not overlap, and that they cover a sufficiently wide range of responses to reflect the relevant aspects of respondents' feelings, beliefs, and/or behaviours. Moreover, for both checklists and multiple-choice questions, it is advisable to include an 'other' option, ideally followed by 'please specify' and space for the participants to do so (for more details on such so-called *fill-in items*, see Chapter 10). Moreover, for questions to which participants may not in fact know the answers, a 'don't know' option should be provided.

Rankings ask respondents to order the answer options in terms of frequency, preference, perceived appropriateness, or some other criterion – as shown in Example 4:

(4) How comfortable do you feel using French with these people?
    Please rank the people in order of how comfortable you feel by putting numbers from 1 to 5 in the spaces provided, with 1 meaning 'most comfortable' and 5 meaning 'least comfortable'.

- family members: ___
- friends: ___
- acquaintances in my neighbourhood: ___
- work colleagues: ___
- strangers: ___

However, as it is overly challenging if the respondent is asked to rank too many answer options, the number of options given should be no more than five.

Finally, *rating scales* represent a set of answer options – either verbal or numeric – that cover a range of views on the issue under investigation. There are various types of rating scales, but the two most commonly used in attitudes research are Likert scales (based on Likert 1932) and semantic differential scales (sometimes also referred to as Osgood's semantic differential scales; based on Osgood et al. 1957). For Likert scales, respondents are asked to express their agreement or disagreement with certain statements, and the response options are usually expressed in words, as in Example 5:

(5) Below is a statement about the French language. Please indicate to what extent you agree with it by ticking the box that most closely corresponds to your point of view.

Knowing French is a prerequisite for succeeding in the working world in Quebec.

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
☐	☐	☐	☐	☐

By contrast, semantic differential scales have polar adjectives at each end but the points in between are numbers without explicit labels – as shown in Example 6:

(6) In your opinion, what are French speakers in Quebec like?

Please indicate how you would characterise them by ticking the box that most closely corresponds to your point of view.

Not at all kind	1	2	3	4	5	Very kind
	☐	☐	☐	☐	☐	

There is disagreement among researchers about whether scales should have an even or uneven number of answer options. The advantage of using even numbers is that respondents have to take a stand (which is why scales with even numbers are often referred to as 'forced-choice' scales); whereas the advantage of using uneven numbers and thus having a midpoint is that respondents can express genuine indifference or ambiguity regarding a statement (Krug and Sell 2013). In any case, the number of answer options should be neither too low nor too high: It is recommended that scales have between four and ten answer options to decrease error variance and ensure reliability and validity (Banaji and Heiphetz 2010; for more details, see below).

There is also no consensus about whether the poles of scales should be varied – that is, whether some scales should have the negative pole on the left while others have it on the right. Some researchers advocate varying the poles of scales,

arguing that it keeps respondents focused (e.g. Schleef 2014), while others have found systematic problems with this (e.g. Luk and Surrain 2019). Whatever decisions researchers make regarding midpoints and the varying of scales, it is important to be aware of the complexity of these issues.

A further point sometimes raised in the context of scales is whether response options are equally ordered – for example, whether 'agree' is conceptually equidistant from both 'neither agree nor disagree' and 'strongly agree' (e.g. Ura et al. 2015). However, most attitude researchers see little problem with using scales that have what can be deemed reasonably equal intervals between adjacent points (e.g. Vogel and Wänke 2016).

9.3.2   Question Wording

When wording questionnaire items of all kinds, it is generally agreed that researchers should use clear and concise language, and they should avoid the following:

- complex syntax and semantic ambiguities (since they may lead to misinterpretations);
- metaphors (since respondents may not understand them);
- acronyms, abbreviations, technical terms, and colloquialisms (since participants may be unfamiliar with them);
- vaguely defined words and phrases (e.g. *many* or *sometimes* – since they may mean different things to different people);
- potentially loaded words and phrases (e.g. *modern* or *democratic* – since they may irritate and/or bias respondents);
- leading questions (e.g. 'Given that minority language speakers should be proficient in the local majority language anyway, do you think . . .' – since they will steer participants in a particular direction);
- hypothetical questions (since these are notoriously bad predictors of actual attitudes); and
- multidimensional questions (i.e. questions that ask about more than one thing, e.g. 'Do you think proficiency in French is important for Anglophones both in Quebec and in the rest of Canada' – since respondents may wish to respond differently to the different components of such items).

It is also important to make no assumptions regarding respondents' background knowledge. Hence, linguistic and other specialist terminology (if its use is absolutely necessary) should always be explained. Moreover, a clear frame of reference should be provided for items wherever necessary. For instance, when asking about linguistic behaviours, the context and time frame need to be established. Thus, it would not be useful to simply ask an Anglophone Quebecer how often they use French; instead, one should ask them, for example, how frequently they use the language in an average week.

If researchers are interested in aspects of language attitudes that could be deemed sensitive – for example, feelings, beliefs, and/or behaviours that are not consensually considered socially desirable – it is advisable to mitigate the relevant items. This can be done by simply assuming that those feelings, beliefs, and/or behaviours are in place, and by asking about pertinent details: for example, 'How often do you code-switch in an average five-minute conversation with your partner?' This makes it more likely that respondents will answer honestly (see Dörnyei 2003 for a more detailed discussion of mitigating such items).

There is some evidence which suggests that the use of relative rather than absolute questions can be helpful in language attitudes research: For example, rather than asking respondents how favourably they evaluate one particular variety, it can be beneficial to ask about evaluations of that variety in direct comparison with another variety. Such relative measures have the advantage of 'induc[ing] respondents to consider social comparison information and behavioral information when making their responses more than do absolute measures' – and they thus yield data that have, in some cases, been found to be better predictors of future behaviour (Olson et al. 2007: 907). However, in some contexts, researchers may be interested in attitudes that are not based on such comparisons. Moreover, using relative questions can make the questionnaire quite cumbersome. Both relative and absolute items can thus be deemed appropriate in attitudes research.

9.3.3   Question Order

The biggest disagreement regarding the ordering of questions concerns the placement of items to elicit socio-demographic information regarding issues such as age, gender, educational level, and place of residence. This information is necessary to find out, for example, which of these variables are potential predictors of language attitudes. If these items are placed at the end, there is a risk that respondents may tire and fail to complete the questionnaire – in which case, connections between socio-demographic and attitudinal variables cannot be investigated. Consequently, some researchers argue that socio-demographic information should be elicited early on (e.g. Krug and Sell 2013). Most researchers, however, agree that such items ought to be placed towards the end because respondents often find them intrusive and off-putting, and they tend to be more likely to provide the relevant information after having already filled in the remainder of the questionnaire (e.g. Oppenheim 2000; Dörnyei 2003; Palviainen and Huhta 2015).

The items at the beginning of a questionnaire should be 'involving and interesting' to draw participants in and ensure they continue completing the research instrument (Schleef 2014: 55). Throughout the questionnaire, it is advisable to utilise different types of closed questions in order to create a sense of variety and avoid participants getting bored. It is also a good idea to keep

respondents alert by roughly alternating items pertaining to the different dimensions under investigation (see Chapter 1 for a discussion of the dimension of language attitudes). Moreover, throughout, the items should have a logical order that is apparent to respondents, with each item (or set of items) following on from the previous one – and with topic changes (e.g. from language proficiency to language usage patterns, and from language usage patterns to beliefs about language) clearly signalled by subheadings.

9.3.4   Reliability and Validity

Two key issues to consider when designing a questionnaire are reliability and validity. *Reliability* refers to '[t]he extent to which a measure assesses a construct consistently', while *validity* is '[t]he extent to which a measure assesses the construct it is supposed to assess' (Vogel and Wänke 2016: 23). Consequently, a researcher interested in language attitudes needs to ensure that their questionnaire elicits attitudes in a consistent manner, and that it does indeed yield data regarding the attitudes it is intended to elicit, rather than regarding something else.

When researching issues other than attitudes, reliability is often ascertained by giving the same research instrument to the same respondents, under the same conditions, at a later time. When it yields the same (or almost the same) results, it is deemed reliable. Yet, with attitudes, differences in results between the initial test and the re-test might simply reflect a change in feelings, beliefs, and/or behaviours rather than an issue with the research instrument itself. The most commonly used ascertainment of reliability for attitudes questionnaires is thus the use of multi-item scales and the determination of their internal consistency (Vogel and Wänke 2016). Multi-item scaling involves the inclusion of several questions that all tap aspects of the attitude(s) under investigation – but they are worded differently and, ideally, not presented consecutively. For instance, if a researcher were interested in attitudes towards French in Quebec on the status dimension, they could include the following items as rating scales (taken from Kircher 2022; for more details, see the case study below):

- French is a language that is useful in modern Quebec society;
- Knowing French will increase my opportunities to find employment in Quebec;
- Knowing French is a prerequisite for succeeding in the working world in Quebec;
- French is a language that is important in order to get far in life in Quebec.

Multi-item scales are considered to have high internal consistency if the sets of items within them are closely related as a group. One widely used index of the internal consistency of such multi-item scales is Cronbach's alpha (Rasinger 2018). Another possibility is factor analysis. If attitudes on both

the status and the solidarity dimension are investigated, factor analysis has the additional advantage of revealing whether the relevant items really do load onto separate factors and are thus representative of the different dimensions (see Plonsky and Gonulal 2015 for a more detailed discussion of factor analysis). If the items' internal consistency is satisfactory, they are assumed to be reliable. It is then possible to calculate an overall mean for attitudes on the status dimension as well as an overall mean for attitudes on the solidarity dimension, and to use these means for the subsequent analyses (see below). This also has the benefit of evening out idiosyncratic interpretations of certain items, thereby reducing the influence of individual question wording on the overall findings.

Reliability is a necessary (albeit not sufficient) prerequisite for validity: A measure without the former cannot attain the latter. However, the very nature of attitudes – that is, the fact that they are defined as states of readiness, dispositions, or tendencies (see Chapter 1) – entails inherent difficulty in establishing suitable criteria against which to validate them (see Agheyisi and Fishman 1970 for a more detailed discussion of this). In studies that focus on the conative component of attitudes, it is possible to compare questionnaire findings with respondents' actual behaviour in situations similar to those stipulated in the research instrument. Yet, for research that focuses on the affective and/or cognitive components, the ascertainment of validity is much more complicated. Frequently, validity is thus assessed with respect to theory – that is, it is ascertained whether the findings of attitudes questionnaires match what attitude theory would posit (Vogel and Wänke 2016). Knowledge about the relevant historical, social, and/or economic circumstances is also considered crucial here. Moreover, it is often recommended to evaluate the plausibility of attitudes questionnaire results by considering relevant previous research in the same context as well as in similar contexts. If the findings do not conform with such previous studies, researchers are advised to determine whether the divergence is sufficiently systematic to be considered plausible (Krug and Sell 2013). In any case, attitudes data elicited by means of questionnaires need to be interpreted with great caution, and researchers have to be mindful about what claims they make based on such data.

9.3.5   What Comes Before and After the Questions

Importantly, questionnaire items about language attitudes and their potential predictors must be preceded by an introduction to ensure respondents know what the research instrument is about, and what they are agreeing to by completing it. The introduction should begin with the title, which ought to be 'neutral, concise, clear and interest-arousing' as well as 'accurately reflect[ing] the content of the questionnaire' (Dewaele 2018: 281). Subsequently, a brief outline of the purpose and contents of the research should be provided, expressed in lay terms if necessary, to ensure all potential participants can understand it.

The introduction should explain what completion of the questionnaire will involve and approximately how long it will take – which, ideally, ought to be no longer than thirty minutes (Palviainen and Huhta 2015). Potential participants should be asked to fill in the questionnaire as honestly and truthfully as possible, and they ought to be reassured that their responses will be treated with confidentiality. It should also be explained how confidentiality will be provided. Moreover, potential participants should be reassured that they will remain entirely anonymous, and that any potentially identifying data will be anonymised in the outputs resulting from the research project. It should be explained clearly for what purposes the questionnaire data will be used. The promise of anonymity and confidentiality is crucial for ethical reasons – and an added benefit is that it has been shown to lead to higher response rates (Oppenheim 2000). Assuming that the researcher has obtained ethics clearance from the institution they are based at, this should be noted as well, and the relevant details ought to be provided. The researcher's name, institution, and contact details should be included to give potential participants the opportunity to contact the researcher with any queries they may have. At the end of the introduction, it is crucial to ask respondents for confirmation that they agree to participate in the research voluntarily.

Following the main part of the questionnaire, that is, the items about language attitudes and their potential predictors, there should be a conclusion in which respondents are thanked for taking the time to participate in the research project. Moreover, even in a questionnaire that contains mostly closed questions to elicit quantitative data, it is a good idea to include at least one general open-ended item at this stage to find out if respondents have any further comments regarding the research topic or the questionnaire itself (see also Chapter 10). It is also at this stage that respondents might be asked to provide their contact details if they are willing to participate in follow-up research. Additionally, it is a good idea to renew the promise of confidentiality and anonymity, and to reiterate the researcher's contact details in case the respondents have any questions. If possible, the conclusion should also contain information on where the research results can be accessed once they are made public. Finally, the conclusion should explain how to submit the questionnaire.

Both the introduction and the conclusion are pertinent parts of the research instrument. They should be devised with the same care, and proofread with the same rigour, as the items about language attitudes themselves. Asking respondents to take the time to complete a questionnaire is only going to be a successful endeavour if the research instrument looks clear and professional in its entirety (see also Dewaele 2018).

9.3.6   Questionnaire Distribution

Once an attitudes questionnaire has been designed, it can be distributed in person, over the telephone, via mail, or online. Whichever form

of distribution is chosen, the researcher should ensure they follow ethics protocols, and they should not start collecting any data before they have obtained ethics clearance from their institution (see Chapter 10 for a more detailed discussion of ethics in questionnaire-based research).

Collecting questionnaire data in person can either take the form of the researcher handing the respondents the questionnaire and then collecting it from them once it is completed, or the researcher can actually ask the respondents the questions and fill in the questionnaire for them. One key advantage of the latter is that it allows for data collection in contexts with low literacy rates in the language that is being studied, where many respondents would be unable to write down their answers themselves (e.g. Kuipers-Zandberg and Kircher 2020). However, a fundamental drawback of face-to-face questionnaire distribution is that responses to standardised questions concerning language attitudes have been shown to be influenced by the ethnic identity, gender, age, and language in its verbal and non-verbal forms of the researcher (Baker 1992). Moreover, face-to-face distribution of questionnaires enhances the risk of attitudinal data being affected by acquiescence and social desirability biases – especially if the researcher asks the questions in person. This also applies to questionnaires administered over the telephone, albeit to a lesser extent. By contrast, distribution via mail or online has been found to enhance respondents' levels of honesty (Dörnyei 2007).

As questionnaires that are distributed by mail have notoriously low response rates, researchers have increasingly been turning to online surveys. These have the typical limitations of questionnaires in general (see above) and there is the additional drawback that, of course, they are limited to participants who have access to the internet. Online research is therefore not a feasible option in many studies involving socio-economically disadvantaged participants – and language attitudes researchers in particular should be sensitive and responsive to this, given that attitudes research frequently deals with experiences of language-based (and other) discrimination. A further issue associated with online questionnaires is that there is a high risk of self-selection bias, particularly if snowball sampling is employed – that is, a sampling technique where the initial participant sample recruits further participants amongst their acquaintances, and they amongst theirs, and so on (Wilson and Dewaele 2010; see also Chapter 10 for a more detailed discussion of sampling in questionnaire research).

Yet, despite their limitations, online questionnaires can in many contexts be an effective way of obtaining rich and useful data. One of their main advantages is that they allow for data to be collected from much larger and much more diverse participant samples than can be obtained by questionnaires that are distributed differently – or, in fact, by many other methods. Notably, this includes 'small, scattered, or specialised populations which would otherwise be difficult to reach' (Dörnyei 2007: 121). Online questionnaires also have the advantage of allowing researchers to include audio and/or video recordings of spoken and/or signed language data for participants to evaluate. Of course, if this is done, ethical

guidelines ought to be followed, and consent needs to be provided by the individual(s) whose language data are used.

If a researcher decides to distribute their questionnaire online, they can make use of a range of different platforms to set up the research instrument. Once this is done, the online questionnaire runs itself. However, before the link to the questionnaire is distributed to potential participants, the layout and functionality should be tested on the different kinds of devices that participants might use to complete it – that is, computers, notebooks, smartphones, etcetera – to ensure everything works as it is intended to (see Dewaele 2018 for a more detailed discussion of this and other aspects concerning online questionnaires). Once this has been ascertained, distribution can take place, for example, via mailing lists, online networks, and social media. Once enough data have been collected, these can simply be downloaded in the form of a spreadsheet.

9.4   Data Analysis and Interpretation

Once the data have been collected, they need be cleaned. Primarily, *data cleaning* consists of ascertaining that the responses included for analysis are (at least largely) complete, that no corrupt data are included, that each respondent has only submitted one completed version of the questionnaire, and that all respondents are in fact eligible for participation (e.g. if the questionnaire is intended to investigate language attitudes amongst individuals living in Quebec, responses from anyone not living in that province should be excluded; for a more detailed discussion of data cleaning, see Palviainen and Huhta 2015).

Subsequently, the data need to be coded. *Coding* here refers to the process of transforming the data so they are suitable for computer-aided statistical analysis. This entails the translation of all nominal variable outcomes into numerical ones: For example, if respondents were asked where they were born, the response option 'in Quebec' might be coded as 1, the response option 'in another Canadian province' might be coded as 2, and the response option 'outside of Canada' might be coded as 3. If variable outcomes are already in numerical form, for instance in the case of semantic differential scales, they can often be left as they are. However, sometimes, coding may also involve the reduction or combination of variables – for example, when overall means for attitudes on the status and solidarity dimensions are calculated (see above; and see Rasinger 2018 for a more detailed discussion of coding).

As noted above, when the data have been cleaned and coded, Cronbach's alpha and/or factor analysis should be employed to ensure the internal consistency of the attitude scales. Subsequently, it is common to run multiple regressions: These constitute an effective way of determining which potential predictor(s) correlate with language attitudes, or which component of language attitudes

correlates with another component. As the procedure of running multiple regressions assumes that the effects of all variables operate independently of each other, researchers should also employ cross-tabulations to find out whether there is any interdependence between variables (see e.g. Oppenheim 2000 and Walker 2014 for more detailed discussions of multiple regressions: the former with details on using these in attitudes research, the latter discussing them in combination with cross-tabulations).

When interpreting quantitative language attitudes data that have been analysed by means of multiple regressions, it is important for researchers to acknowledge the correlational nature of their study: Multiple regressions allow researchers to conclude which variables are related to one another, but not whether this relationship is in fact causal. This should at least be noted, even if causality seems probable. Furthermore, quantitative language attitudes data elicited by means of questionnaires need to be interpreted carefully due to two issues discussed above, namely the difficulty of ascertaining of the validity of research instruments and the risk of self-selection bias affecting the nature of participant samples. Yet, notwithstanding these notes of caution, quantitative data elicited by means of questionnaires can provide highly meaningful insights into the nature of language attitudes (see Levon 2018 for a more detailed discussion of data analysis and interpretation).

9.5   Case Study: Language Attitudes in Quebec

Many of the key points discussed in this chapter can be illustrated by an investigation of language attitudes that I conducted in Quebec (see Kircher 2022 for a full discussion of this study). While it is Canada's only province with a Francophone majority, Quebec is nevertheless home to a sizeable Anglophone community – as well as a growing number of immigrants and their descendants whose mother tongues are languages other than French or English, and who have historically tended to integrate into the province's Anglophone community (Levine 1990). Since the 1970s, concerted language planning efforts have strengthened the position of French in Quebec society; however, French continues to face the challenge of English due to its status as the language of upward mobility in North America at large, as well as due to its role as the global lingua franca (Stefanescu and Georgeault 2005; Kircher 2016a).

It is generally agreed that continuous language planning is necessary to prevent language shift among minority language communities such as French speakers in Canada (e.g. Wright 2004), and that the promotion of intergenerational language transmission is key in this respect (e.g. Fishman 2001). While there are no exact figures regarding the intergenerational transmission of French in Quebec, national census results show that there has been a decline in the percentage shares of Quebecers who declare French as their mother tongue and

as the language they speak most often at home (Statistics Canada 2011; Statistics Canada 2016) – which is indicative of a decline in intergenerational transmission. I therefore decided to investigate whether and to what extent several variables, including Quebecers' feelings and beliefs about French (i.e. the affective and cognitive components of their language attitudes), influence whether they transmit the language to their children (i.e. part of the conative component of their language attitudes). A key aim of the study was to inform possible future language planning measures to promote the intergenerational transmission of French in Quebec.

For my data collection, I chose an online questionnaire because it allowed me to quickly and easily reach participants of various backgrounds throughout the province, and because it enabled me to elicit data regarding all three components of language attitudes. The enhanced honesty of responses due to the anonymity offered by online research instruments was another reason for my choice. This was particularly pertinent in the light of the potentially sensitive nature of the research topic and the resulting risk of social desirability bias (since many Quebecers seem to feel that they *should* favour French over English because of widespread public discourses and the aforementioned language legislation; Kircher 2016b). I thus considered the strengths of the research instrument to outweigh its limitations (see above).

The potential predictors of intergenerational transmission I investigated included not only the respondents' feelings and beliefs concerning French on the status and solidarity dimensions, but also their native language(s), proficiency in French, use of French with their partner, Quebec-based social identity, migration background, and location within Quebec. To elicit data regarding these potential predictors as well as the intergenerational transmission of French, I followed the recommendations outlined above – for example, by giving the questionnaire a clear and logical structure indicated by subheadings, employing different types of closed questions, wording them as unambiguously as possible, employing multi-item scales to elicit feelings and beliefs on the status and the solidarity dimensions, as well as roughly alternating these items. My judgement of the questionnaire's validity was informed by language attitude theory (see Chapter 1) as well as previous attitudes research in the Quebec context (e.g. Lambert et al. 1960; Genesee and Holobow 1989; Kircher 2014a). The reliability of the multi-item scales was determined by means of factor analysis, which revealed two significant factors: All items designed to tap the status dimension loaded onto one of them, and all items designed to tap the solidarity dimension loaded onto the other. Therefore, the multi-item scales were deemed to be reliable.

I distributed the questionnaire by means of snowball sampling (see above) to a participant sample consisting of 274 Quebec-based parents of different sociodemographic and linguistic backgrounds, with ages ranging from 18 to 44. Multiple regressions revealed that three of the aforementioned potential predictors correlated significantly with the intergenerational transmission of French

(i.e. part of the respondents' conative component of their language attitudes): firstly, French as the/a native language; secondly, proficiency in French; and thirdly, feelings and beliefs about French on the solidarity dimension (i.e. the affective and cognitive components of the respondents' language attitudes relating to this dimension). Notably, native language, proficiency, and feelings and beliefs on the solidarity dimension also had a statistically significant relationship with the intergenerational transmission of English among the same participant sample.

Evidently, as a result of the sampling method and the sample size, no claims can be made regarding the generalisation of this study's findings to the Quebec population at large. Moreover, as noted above, due to the correlational nature of the study, the findings only allow me to conclude which predictors are related to intergenerational transmission – but not whether this relationship is in fact causal (even though this seems probable). Nevertheless, the findings provide meaningful insights into language attitudes in Quebec, and should they hold true, they would have important implications for language planning to promote the intergenerational transmission of French in the province.

Firstly, if the findings hold true, they would suggest that acquisition planning measures to increase Quebecers' proficiency in French would constitute an effective strategy to get parents to pass the language on to their children (see Cooper 1989 for a discussion of acquisition planning). Secondly, if the findings hold true, they would indicate that prestige planning measures to engender more positive feelings and beliefs about the French language would also promote its intergenerational transmission (see Haarmann 1990 for a discussion of prestige planning). Notably, the promotion of the intergenerational transmission of French by means of such acquisition and prestige planning measures would probably lead to an increase in children growing up with French as their native language, or one of their native languages – which, in turn, would then make it more likely for these children to pass on the language once they have grown up.

This case study of language attitudes in Quebec thus not only illustrates many of the key points from the preceding sections of this chapter, but it also serves as an example of the important role that knowledge about attitudes can play in the formulation of effective language policy and planning measures (see Chapter 1).

9.6 Further Important Considerations

Yet, it is crucial for researchers who are using questionnaires to elicit quantitative language attitudes data to bear in mind that findings from one cultural context cannot necessarily be generalised to other contexts. For instance, the aforementioned case study revealed native language, proficiency, and the affective and cognitive components of language attitudes on the solidarity dimension to be statistically significant predictors of (at least part of) the conative component of attitudes towards French in the Quebec context. The fact

that the same variables also emerged as significant for the transmission of English among the same participant sample could be seen to indicate that these variables predict language transmission more generally. However, there is no guarantee that this pattern extends beyond the Quebec context – just like the findings from other attitudes studies may be context specific. This is because many of the social factors that are commonly investigated in relation to language attitudes – such as ethnicity, age, and gender – are socially constituted. The 'understanding and implications of being Jewish or Arab, young or old, female or male [or holding other gender identities] are not the same across communities and cultures', and very different pictures may therefore emerge in different environments (Pavlenko 2002: 281; see also Dewaele 2009). This is yet another reason for researchers to be very cautious and context sensitive when it comes to the interpretation of quantitative attitudinal data obtained by means of questionnaires.

Finally, it should be pointed out that more nuanced insights into language attitudes can be obtained by combining questionnaires with other research instruments. For instance, Ryan et al. (1988) strongly advocate a mixed-methods approach that combines direct methods (like interviews, focus groups, question-naires, and perceptual dialectology studies) with indirect methods (like matched-guise studies, verbal-guise studies, and other experimental designs). This is because direct methods yield results that reveal what respondents consider to be socially acceptable and/or desirable while indirect methods have been shown to elicit more private and subconscious reactions. A combination of these types of methods can therefore provide deeper and more nuanced insights than could be obtained by any method alone. The same can be said for attitudes research that combines the study of both quantitative and qualitative data (see Chapter 21 for a more detailed discussion of mixed-methods approaches to the study of language attitudes).

Suggested further readings

Dewaele (2018); Garrett (2010); Levon (2018); Oppenheim (2000); Rasinger (2018)

10 Questionnaires to Elicit Qualitative Data

Lena Zipp

10.1 Introduction

Questionnaires are today most commonly associated with quantitative research in the social and behavioural sciences, but they have always also been used to collect data that can be subjected to qualitative analysis, by means of open-ended items. *Open-ended items* (sometimes also called *free-response items*) invite the respondent to answer a question with a few words, sentences, or a paragraph of free writing, thereby eliciting idiosyncratic responses. Qualitative data elicitation by means of a questionnaire thus combines the strengths of sample size and ease of distribution typically associated with survey designs with the benefits of rich and descriptive data encountered in qualitative research. This chapter focuses on the discussion of open-ended questionnaire items of different types – their application, strengths and limitations, and guidelines for the analysis of the data they elicit. In the following, the chapter aims to highlight the viability of this method that has had varied relevance and recognition in the history of language attitudes studies: While Agheyisi and Fishman claimed in the 1970s that '[i]n attitude studies, most survey questionnaires mainly contain open question items' (1970: 147), their use rapidly declined in favour of closed items in large-scale quantitative surveys (e.g. Geer 1991; Singer and Couper 2017), before picking up popularity again in line with the general trend towards qualitative research associated with grounded theory and content analysis (e.g. Cho and Lee 2014; Neuendorf 2017). The chapter should be read in conjunction with the previous one on the elicitation of quantitative questionnaire data by means of closed questions (see Chapter 9), which provides guidance for some of the general issues in questionnaire design – not the least because most questionnaires ideally consist of both open-ended and closed items.

Open-ended questionnaire items have been shown to be well-suited for the study of each of the three components (affect, cognition, and conation; see Chapter 1) generally agreed to make up attitude structure (Haddock and Zanna 1998; Esses and Maio 2002). The main reason for using open-ended items is to allow respondents to freely express their individual views about the attitude object, while avoiding the bias resulting from suggesting options to them. There are five considerations that should prompt the researcher to choose open-ended over closed questions (Singleton and Straits 2018: 307–308): Firstly, if the objectives of the survey are exploratory in nature. Secondly, if

the level of information respondents can be expected to have is unclear or likely to vary across respondents. Thirdly, if respondents' positions are complex and potentially subconscious instead of pre-formulated and well-structured. Fourthly, if respondents are highly rather than poorly motivated to communicate their attitudes. Finally, a decision should be made for open-ended over closed questions if the researcher has limited previous knowledge of the respondent characteristics described above. Yet even after these factors have been considered, the range of forms that open-ended questions can take is wide, and the potential reasons for employing them are manifold.

10.2   Strengths and Limitations

10.2.1   Questionnaires versus Other Qualitative Approaches

In contrast to other direct methods with a qualitative orientation, such as interviews (see Chapter 7) or focus groups (see Chapter 8), questionnaires allow for a quick, cost-effective, and comparatively easy distribution of the instrument to a large number of respondents (see also Chapter 9 for more information regarding the strengths and limitations of questionnaires). Choosing between traditional pen-and-paper application and web-based distribution methods results in different degrees of control over participant selection as well as varying levels of anonymity and uniformity (Garrett 2004: 1255).

A practical advantage of web-based distribution is that participation is neither bound to time or place nor researcher attendance – and it is also a successful means of avoiding interviewer effects or social desirability bias. The same goes for postal questionnaires, which Beckett and Clegg (2007: 309) successfully used to collect 'rich, thick, qualitative accounts' usually associated with interviews. They challenge the assumption that qualitative data depend on researcher presence in the ethnographic tradition, and that this presence guarantees authenticity (2007: 316):

> Present researchers [. . .] can reinforce the sense that information is their right, and that information in the form they understand it is the only important information. Methodologies of non-presence, on the other hand, allow researched people to evaluate information in their own space and time, and control the shape and emphasis of information given.

On the other hand, self-administered formats suffer from limitations of both practical and theoretical nature. For one, the absence of the researcher entails the danger of participants misunderstanding the topic without the possibility of correction or follow-up questions. Moreover, the written format might pose problems to respondents with limited literacy (e.g. Kuipers-Zandberg and Kircher 2020). It also generally results in widely varying answer lengths and amount of detail across the sample – and the distant mode usually causes low

response rates (Dörnyei and Taguchi 2010: 7). Some scholars thus contest that open-ended questionnaire items provide more than superficial data: 'no matter how creatively we formulate the items, those are unlikely to yield the kind of rich and sensitive description of events and participant perspectives that qualitative interpretations are grounded in' (Dörnyei and Taguchi 2010: 10; see also Dörnyei 2007: 35–42 and 54–62).

10.2.2   Open-Ended versus Closed Items

The advantages of open-ended over closed questionnaire items mostly lie with their accessibility both to the researcher and the respondent: Open-ended items are easy to write because only the questions are standardised and no response alternatives have to be suggested (Krosnick 2018: 97). They are also easy to answer: Despite the fact that item non-response is higher for open-ended than for closed questions, percentages of non-response are usually quoted to be below 5 per cent (Geer 1988; Haddock and Zanna 1998). Articulateness, or rather lack thereof (as measured by education), appears not to be an obstacle in responding to open-ended questions – rather, interest in the topic is the main factor that correlates with response length and non-response (Geer 1988).

One of the distinguishing advantages of this method is that it is far less likely to produce *non-attitudes* (i.e. opinions formed in the moment, also called *on-line judgements*) than the use of closed items, as individuals will simply not provide answers to open-ended items if they have nothing to say on the topic – acknowledging at the same time that there is a debate about whether attitudes are pre-formed at all (see Chapter 8). Thus, responses to open-ended items were found to include emotions and beliefs of high personal relevance as well as attitudes 'that participants associated with a high percentage of group members' (Esses and Maio 2002: 83). Reporting error – that is, respondents overreporting desirable attitudes or behaviours and underreporting undesirable ones, thus basically providing false information – has been demonstrated to be smaller in open-ended responses (Tourangeau 2018: 138; see also Singleton and Straits 2018: 332 on other common techniques for minimising social desirability bias). An additional benefit of using open-ended items is that the wording of answers in itself might provide clues as to the existence of social desirability bias (see Garrett et al. 2003: 38). In studies of reliability and validity, open-ended questions typically prove to be both more reliable and more valid than closed questions (e.g. Krosnick 2018; Singleton and Straits 2018: 433); see also Kolbe and Burnett (1991) on measures to improve reliability in open-ended questions, Chapter 9 on a detailed discussion of reliability and validity, and Section 10.4 of this chapter on inter-coder reliability in the analysis of open-ended items.

In addition, open-ended items benefit in a number of ways from the fact that respondents 'provide their own list of relevant dimensions for evaluation' (Esses and Maio 2002: 79): Firstly, they are not target-specific in that they can be used

for a wide range of attitude objects. Secondly, they are not time-specific in that they will not go out of date, which renders them suitable for longitudinal studies. Last but not least, they are less sample- or culture-specific and lend themselves well to cross-cultural studies (see also Haddock and Zanna 1998: 145–146 on further areas of attitudes studies in which open-ended measures prove beneficial). Finally, Brown (2009: 205) points out that '[a]nswers to open-response items can also provide striking examples and illustrative quotes, so they offer a far greater richness, adding more depth and color to the data than answers to closed-response items'. The emerging picture of language attitudes is accordingly more complex: 'Open-ended items [...] rest on a more discursive model of attitudes, in which attitudes are considered to be best accessed in a more contextualised form, allowing the explicit weighing up of contrasting viewpoints, and the expression of modality' (Garrett et al. 2003: 37).

The drawbacks of open-ended items lie in the time demands they impose on both the respondent and the researcher. It is widely acknowledged that open-ended items take 'about twice as long to answer as closed questions and respondents prefer closed questions' (Singleton and Straits 2018: 433). By eating into precious 'respondent-availability time' (Dörnyei and Taguchi 2010: 37), they also restrict the range of topics the questionnaire can cover. Data size and data handling are challenges to the researchers analysing open-ended items, which renders the analysis stage of this method more time-consuming than that of questionnaires which employ closed items (while for the latter, more time usually has to be invested at the design stage when determining the most appropriate answer options for each item; see Chapter 9). In particular, general decisions on coding and interpretation have to be made, documented, and followed through; coders have to be instructed and trained; and the data might have to be analysed in an immersive or iterative manner. While these challenges are the same for all methods that elicit qualitative data, open-ended questionnaire responses can additionally vary considerably in length because there is no opportunity for the researcher to address this flaw during the stage of data collection. If there are sparse answers with little context, these present problems for coder understanding. The coding scheme has to address the fact that 'respondents typically produce many different kinds of responses, and responses can generate frequent or infrequent mention of topics that may have different importance to the respondents' (Jackson and Trochim 2002: 308). This might or might not be due to issues with frame-of-reference effects – that is, if questions are worded too openly for respondents to realise what counts as an acceptable answer (Krosnick 2018: 98). Even with appropriately guided question sequences, the valence of response items (i.e. their positive or negative charge) can prove challenging to determine in studies that are interested in the distinction of favourable versus unfavourable attitudes towards an attitude object. While research instruments with closed questions mostly use response items with pre-determined valence, for open-ended studies, 'it is essential to determine the valence of responses from the specific participants at hand for the specific attitude object under

consideration and in the context in which they are assessed' (Esses and Maio 2002: 85). For example, terms such as 'conforming', 'religious', or 'feminine' can take on different meanings, depending on the attitude object, the context, and the respondent.

10.3   Research Planning and Design

One characteristic of planning and design in qualitative research is without doubt that decision making has to start on quite a theoretical and abstract level. The researcher needs to be aware of the fact that qualitative research is a prolific and growing field that comprises a wide variety of issues, on some of which there is a considerable amount of debate (e.g. the role of the researcher in the analysis of qualitative data, see Dörnyei 2007: 35–42). A second characteristic of qualitative research is that studies often set out with a broader and more general research question or purpose rather than, for example, verifiable hypotheses.

It should be noted that a number of key issues for this method are discussed in the previous chapter on quantitative questionnaire data (Chapter 9). Consequently, the reader is directed to these guidelines on question wording, question order, 'what comes before and after the questions', and questionnaire distribution – while the discussions of sampling issues, piloting, and research ethics in the present chapter are intended to complement the preceding chapter (Chapter 9).

10.3.1   Open-Ended Question Types

In some contradiction to the term itself, open-ended questionnaire items are rarely completely open (e.g. 'What do you think about variety X?'). Such so-called *essay questions* are not recommended for use in questionnaires, as they are extremely time-consuming to answer and can suffer from frame-of-reference effects. Instead, there are a number of question types that provide guidance to respondents while still allowing for freedom of expression (Brown 2009: 202–204; Dörnyei and Taguchi 2010: 36–39).

Fill-in items ask about concrete, brief pieces of information and can be answered in one line (paper) or a small answer box (electronically), such as demographic items ('Age: _____ Nationality: _____'). Fill-in items can also be employed in combination with closed questions, and are then usually worded 'Other, please specify: _____'. In this case, the context of the closed response options serves as a frame of reference, and responses to the fill-in items add to the range of answers (O'Cathain and Thomas 2004). *Sentence completion items* are a sub-type of this category; they are designed to direct the respondent's attention to a well-defined area or issue, for example 'When counting in my head, I count in _____ (language)'.

Short-answer questions require responses of a few phrases or sentences. A sub-type of these are the *specific open questions*, which can be used to ask about past activities or personal preferences ('How long have you spent outside the country, and where? _____'; 'Which TV programmes do you watch regularly? _____'). Another subtype of short-answer questions are *clarification questions* that follow a closed questionnaire item, prompting participants to elaborate on the answer given therein by typically asking 'Why? _____'. Singleton and Straits (2018: 325) describe how clarification questions such as 'What things specifically do you feel are satisfactory (or unsatisfactory) about X? _____' can help determine the frame of reference of the closed items they are following (see also the use of funnel sequences of questions – from general to specific – to establish the investigator's frame of reference).

Broad open questions aim to elicit answers of more than a sentence and up to one or two paragraphs – and as such allow for a degree of exploratory inquiry. Ideally, they should deal with one concept or issue only, and stipulate answers of a desired length by means of three techniques: increasing the size of the answer space, pointing out possibilities of recording lengthy answers, and/or providing clarifying and motivating instructions. Smyth et al. (2009: 336) point out that 'using an introduction that emphasizes the importance of responses to the research increases response length, number of themes, elaboration, and response time and reduces item nonresponse'. Often, broad open questions are employed to ask respondents about their general experience in relation to the overall topic of the survey, thereby providing an opportunity for feedback that is best capitalised on when piloting a questionnaire (see below). These *general* questions usually take the form of 'any other comments?', but can be worded more elaborately, as the following example from Gillham (2008: 34–35) shows: 'We have tried to make this questionnaire as comprehensive as possible but you may feel that there are things we have missed out. Please write what you think below, using an extra page if necessary'. O'Cathain and Thomas (2004) recommend that researchers should be very clear about the purpose of this often habitually added and subsequently ignored general item, in order to be able to employ it successfully: If its purpose is to make respondents feel heard on important topics, researchers should ensure that all comments are read to identify any concerns or queries, and address them. On the other hand, if the general question is aimed at identifying issues not covered by the preceding questions (such as the example by Gillham 2008), it can act as a safety net for the study – after all, there 'may be issues which qualitative methods and piloting fail to uncover because they affect a small number of people only, or they are specific to sub groups which have not been included in the development work, or they have occurred since the design of the questionnaire' (O'Cathain and Thomas 2004).

An additional item type, referred to as *thought-listing items* (e.g. Haddock and Zanna 1998; Esses and Maio 2002), contains a quantitative element. In this type, respondents are asked to provide a list of thoughts, associations, or beliefs (for

the study of the cognitive attitude component), or a list of emotions that they experience when they encounter or think about the attitude object (for the study of the affective attitude component). Typically, a certain number of spaces is provided for responses, while participants are encouraged to additionally provide as many as they deem necessary to describe the attitude object adequately. In a second step, the participants are then asked to go back and rate the valence of each previously given response item on a scale with an uneven number of points. A numerical score can then be calculated by dividing the sum of the valence ratings by the number of self-provided items (Haddock and Zanna 1998: 132; Esses and Maio 2002: 74). This format provides data that can be subjected to content analyses as well as to direct quantitative analyses, such as calculating the average valence or the sum of valences for each participant. For example, the item could be worded as follows in order to tap into the cognitive attitude component: 'Please list the characteristics, attributes, or short phrases you would use to describe English in Fiji'. An individual respondent's thought list might consist of the four response items 'broken', 'easy to understand', 'needed for university' and 'mixed with Fiji Hindi'. In a second step, the respondent would go back and rate the valence of each response item from extremely negative (-3) to extremely positive $(+3)$: 'broken (-3)', 'easy to understand $(+3)$', 'needed for university $(+1)$' and 'mixing with Fiji Hindi (-2)'. This respondent's average valence for this one question would thus be (-1). Similar thought-listing procedures are described in Garrett et al.'s (2003: 179–197) 'keyword responses' to audio stimuli, and Carmichael's (2016: 162–164) 'free-listing task': Both asked respondents to note down the first impressions, or 'the first three words that came to mind' in response to the attitude object; Carmichael then quantified the list of response items across participants by frequency of mention and used word cloud visualisation to relate her results.

Because all open-ended question types commonly result in higher non-response rates than closed ones, there is widespread agreement that open-ended questions (when used in combination with closed items) should be placed at the end of questionnaires in order to avoid the possibility of respondents either using too much time on them or dropping the questionnaire altogether. 'In addition, some people find it psychologically more acceptable to put in the necessary work to answer an open-ended question if they have already invested in the questionnaire and if they know that this is the final task' (Dörnyei and Taguchi 2010: 48).

10.3.2   Sampling

One regard in which questionnaire studies stand head and shoulders above other research methods in language attitudes is their ability to work with large participant numbers. Nevertheless, researchers need to select a sample of participants on the basis of which they can make observations that can ideally be generalised to all language users of the same specifications. As a first step,

researchers should thus specify the *target population* (i.e. the group to which the results can be generalised). In a second step, researchers need to set a *sampling frame* by formulating an operational definition of the set of cases that are to be sampled of the target population – a list or rule that defines membership (see Singleton and Straits 2018: 149–188). In analysing and interpreting their results, researchers must exert extreme caution not to extend the generalisation to other populations (Ness Evans and Rooney 2013: 132) because results can only ever be representative of the sampled population. The issue of representativeness is concerned with the accuracy with which the particular sample that certain conclusions are based on represents the population these conclusions are applied to (Milroy and Gordon 2003). However, Singleton and Straits (2018: 156–157) point out that the term *representativeness* has 'nearly disappeared from the technical vocabulary of sampling. Not only is it extremely unlikely that one will be able to draw a *perfectly* representative sample; it also is rarely possible to evaluate a specific sample in terms of its overall representativeness'.

Two broad classes of sampling designs or types can be distinguished: probability sampling and non-probability sampling. *Probability sampling* rests on the premise of random selection of cases from the target population to the sample – thus, the probability of each case being included in the sample is known. It offers two advantages that make it scientifically sound: firstly, it removes the possibility that researcher bias influences the selection of cases; and secondly, statistical probability testing can be applied to draw generalisations from the sample to the target population. As such, probability sampling is the standard for quantitative study designs. If it is not possible to conduct *simple random sampling* (based entirely on chance and drawing from the whole population), *stratified random sampling* can be used instead: In this sampling design, the population is first divided into mutually exclusive segments or strata, based on categories of parameters that are important in the context of the study (e.g. ethnicity). Then, random samples are drawn from each segment. A stratified random sample is thus 'a combination of randomization and categorization' (Dörnyei 2007: 97). Other modifications of random sampling include *systematic sampling*, in which every n[th] member of the population is selected (starting from a random case and applying a sampling interval), and *cluster sampling*, in which clusters or groups (e.g. schools, counties, or communities) are sampled randomly, potentially followed by a second stage of random selection from the first group of clusters etcetera (see Singleton and Straits 2018: 165–170).

Non-probability sampling, while statistically clearly inferior, can still be a feasible (and in some cases the only possible) strategy in language attitudes studies – for example if the community under observation is very small, not accessible, or not readily identifiable. In these cases, three types of non-probability sampling can be used: quota sampling, purposive sampling, and convenience sampling. *Quota sampling* resembles stratified random sampling in that the population is divided into relevant and weighted strata (e.g. 40% Fiji citizens of Indian heritage and 60% indigenous Fijians) but instead of

randomly selecting from these strata, researchers fill each quota in the sample with conveniently accessible cases. The resulting sample is thus a convenience sample with some resemblance to the target population. In *purposive sampling* (sometimes referred to as *theoretical sampling*), the researcher selects cases into the sample based on their knowledge of what is typical, or representative, of the population. When following this sampling scheme, the sampling strategy needs to be made explicit; for example, it can be grounded in the selection of cases being homogeneous, typical, or meeting some predefined criteria (other strategies include sampling extreme or deviant cases, or those with maximum variation; see Dörnyei 2007: 128). Finally, *convenience sampling* (also called *opportunity* or *fortuitous sampling*) describes the process in which the researcher selects the sample from cases that are conveniently available, based on practical criteria such as accessibility or the willingness to volunteer. This is acceptable if generalisability is not an issue, because 'convenience sampling is a matter of catch-as-catch-can. There is no way of determining to whom, other than the sample itself, the results apply' (Singleton and Straits 2018: 172).

Another issue that should be considered is the size of the sample required for the success of both probability and non-probability sampling designs. For studies based on simple random sampling, the often quoted 'the bigger [the sample], the better' applies, because '[a]s sample size increases, the *standard error* (a measure of the "average" sampling error) decreases' (Singleton and Straits 2018: 162). However, stratified random sampling can also increase sample precision, as can several additional considerations of a statistical nature (Dörnyei 2007: 99–100). One of them, for example, concerns the relationship between sample size and the statistic measure and research design used: 'Larger samples are needed when multiple statistical comparisons are planned, smaller samples are fine for tightly controlled experiments' (Dewaele 2018: 277) in which there is a strong relation 'between the manipulated variable and the behaviour' (Ness Evans and Rooney 2013: 135).

The methodological literature on the question of sample size often includes pragmatic rather than statistical guidance, including discussions on how to actually recruit study participants in real life. Practical issues the researcher should consider include constraints of time and human resources, informant recruitment and availability, funding, and organisational constraints such as timetabling – because these often limit the sample size, thereby forcing a trade-off between theory and reality (Krug and Sell 2013: 70). Concrete recommendations for the recruitment of participants for questionnaires that are set up for online completion (see Chapter 9) include advertising or distributing them on social networking sites (Schleef 2014: 52) and posting a call either on the Linguist List (http://linguistlist.org) or on professional listservs (Dewaele 2018: 280). However, all these web-based sampling strategies suffer not only from self-selection bias but also from coverage error, which derives from the fact that the target population consists of respondents with access to the Internet, and the fact

that there was no transparent sampling frame that selected these Internet users (Singleton and Straits 2018: 208).

One of the most frequently recommended strategies of participant recruitment that works both on- and offline falls under the category of *referral sampling* techniques: namely *snowball sampling* (see Singleton and Straits 2018: 176 for other types of referral sampling). This is essentially a process of chain referral in that the researcher puts the call out to their contacts asking them to participate and forward it to their contacts who fit the selection criteria, who in turn are asked to do the same. Dewaele (2018: 279) notes that this technique needs some perseverance from the side of the researcher, who 'throws the [snow]ball in the direction of fresh snow that will adhere and that multiple little pulls and pushes are needed to keep it rolling'. In any case, as Dewaele (2018: 275) notes, participant recruitment is probably never a straightforward process as participants might be more or less willing to be recruited to fill in questionnaires that 'may bring back unhappy school memories' or 'may provoke a fear of looking stupid in the eyes of the researcher as they may think that there are "right" and "wrong" answers'. Samples might thus never be fully representative of the general population, and this fact needs to be reflected in the researchers' critical awareness and acknowledgement of their limitations.

10.3.3   Piloting

It is recommended to conduct a *pilot* (also called a *pre-test*) for every questionnaire, using a sub-sample of the actual sample that the researcher intends to draw from the target population (e.g. Dörnyei and Taguchi 2010: 53–57). This step allows the researcher to give the study design a trial run to discover potential problems, either concerning the items per se (e.g. to find out if any of them are ambiguous or difficult, and if there are frame-of-reference issues) or the practicalities of questionnaire administration and processing. In addition, a pilot study can also provide useful information on the clarity of instructions and design (mostly through an analysis of the response patterns, such as missing answers, but sometimes also through explicit questions at the end of the research instrument) as well as the time needed to complete the questionnaire. Usually, the size of the pilot sample (also called the *pre-test sample*) is not crucial, but it should be large enough to detect problems in the research instrument. In any case, the researcher should take care to pilot the questionnaire on as heterogeneous a sample as the target population (see Singleton and Straits 2018: 338–341 on methods for evaluating and testing questionnaire items).

Some researchers also opt to field-test different versions of their questionnaire in the form of a *split-ballot test* distributed to randomly selected pilot study respondents, to determine, for example, if question order has unwanted effects on the results (Singleton and Straits 2018: 240). Moreover, a specific use for pilot studies using open-ended items in the development of questionnaires can be to gauge the full range of responses in a pre-version in order to determine the

response options to be used in the final questionnaire version with closed items (e.g. Singer and Couper 2017).

10.3.4   Research Ethics: Privacy and Confidentiality

It is good practice to accompany every publication of questionnaire-based research findings with a concise summary of the study's main aspects, 'respondents, sampling, main focus, piloting, administration, data analysis, and ethical issues', as well as with a copy of the questionnaire in an appendix (Brown 2009: 216). Ethical issues typically concern both *privacy* and *confidentiality*: Qualitative researchers must consider how to protect the privacy (identities, names, roles) of their participants, and how to hold what they share in confidence (Rallis and Rossman 2009: 275). This is usually done through the process of anonymisation – using pseudonyms or serial numbers for questionnaires, for example (Schleef 2014: 56). The respondent's right to privacy should always be respected, which entails that respondents should be informed that they can withdraw from a study completely at any point during the data collection process. At the same time, the researcher must make sure not to promise a higher degree of confidentiality than that they can achieve. For example, qualitative data might include information that is so intimate, or reveal demographic constellations that are so particular, that non-traceability cannot always be guaranteed (Lazaraton 2013; Dörnyei 2007: 68).

As Dörnyei (2007) points out, a particular threat to confidentiality is presented by data management, in particular if audio or video data are required to be stored over longer stretches of time by the respective research institutions; if no data management plan is made concerning numbers of copies, sharing, and access rights; and if written records are not carefully and securely kept during and after the end of the research project. He concludes: 'The best way to prevent the abuse of data storage is to destroy the data after a while' (Dörnyei 2007: 68).

10.4   Data Analysis and Interpretation

This section lays out the steps required for qualitative content analysis, which has been proposed to be the most suitable methodology for attitudinal data elicited by means of open-ended questions (Jackson and Trochim 2002: 311; see also Chapter 7). For information on grounded theory, another popular method for the analysis of qualitative data with a focus on theory development, see Chapter 8.

Before starting the data analysis process, the researcher has to make a fundamental decision on whether they will follow an *inductive* or a *deductive* approach. In the former, more conventional approach, codes, categories, or themes are derived inductively from the data analysed (Cho and Lee 2014: 4; Dörnyei 2007: 245). This is very appropriate for the exploratory study of

qualitative data with limited or no prior knowledge of the object under investigation. However, qualitative content analysis can also be employed to test existing theory or to apply it to a new context. In this case, preconceived codes or categories are taken from prior literature and applied to the new data by way of a deductive (also called *directed*) approach.

The first step of data analysis in both approaches consists of *unitising* – that is, selecting the units of analysis (see Neuendorf 2017: 70–73; Krippendorff 2018: 102–112). As Jackson and Trochim (2002: 314) explain:

> A unit of analysis consists of a sentence or phrase containing only one concept – units can often be lifted intact from the response because respondents tend to express one idea for each concern or opinion they list. Otherwise, unitizing is done by breaking sentences into single-concept phrases.

Researchers pursuing an inductive study then proceed to read the data (or at least parts of the data) repeatedly in order to achieve a sense of the represented meanings, and start highlighting words or phrases that appear to capture key concepts (Hsieh and Shannon 2005: 1279) – these processes are called *open coding* or *pre-coding*, and *creating categories*. If possible, the number of categories should be kept to a minimum in this phase. Subsequently, the researcher must (re-)code all of the data using these codes, adding new codes whenever data do not fit an existing code. The last step consists of revising the final set of codes, grouping or combining them if possible, and organising them into themes.

In a deductive approach, unitising is followed by a phase of reading, in which categories are identified in prior theory and selected for the study. Coding is then begun immediately using these predetermined codes, and data that do not fit into these categories are identified. For these data, the researcher then has to decide whether they represent a new category or a subcategory of an existing code. Finally, the final set of codes is again revised and grouped into themes (Hsieh and Shannon 2005; Cho and Lee 2014: 15). The results of (inductive and deductive) qualitative content analysis thus consist of a set of priority categories that cover the data.

Content analysis, despite its prolific use in qualitative studies, has some weaknesses that the researcher must address: '(a) It relies on researcher-driven classification schemes; (b) it allows interdependence between coders; and (c) as a methodology, it offers weak reliability and validity assessments', for example because of non-exhaustive categorial coding schemes (Jackson and Trochim 2002: 311). In order to avoid these weaknesses, it is recommended that several coders or judges work with the dataset, and that inter-coder reliability is tested: 'High levels of disagreement among judges suggest weaknesses in research methods, including the possibility of poor operational definitions, categories, and judge training' (Kolbe and Burnett 1991: 248). Inter-coder reliability coefficients should be calculated and subsequently reported in the study (for a more detailed discussion of how this is done, see e.g. Neuendorf 2017: 165–200). Some of the weaknesses mentioned above can also be addressed by using computer-assisted

qualitative data analysis software (CAQDAS) – for an overview of the various benefits of this type of analysis, see Seror (2013) and for a comprehensive guide to using software in qualitative research, see Silver and Lewins (2014).

Finally, it should be noted that data elicited by means of open-ended questionnaire items can also be analysed quantitatively. This tends to be done by means of frequency-based evaluation schemes that typically employ computer-assisted analysis (e.g. corpus linguistic or corpus-assisted techniques) and use words – rather than codes – as units of analysis (for more details, see e.g. Kircher and Fox 2021; Kutlu and Kircher 2021). However, open-ended items are not to be confused with production questionnaires used to elicit authentic language use for linguistic analysis (Brown 2009: 204).

10.5   Case Study: Attitudes towards Varieties of English in Fiji

The following case study to illustrate the use of open-ended questionnaire items is based on data that my colleagues and I collected at the University of the South Pacific in Fiji's capital Suva in 2010 (see Zipp 2014a, Hundt et al. 2015). Fiji is a multilingual country with an eventful colonial and post-colonial history. Its population is largely split into two demographic groups, namely indigenous Fijians and Fiji citizens of Indian heritage, the latter of whom are mostly descendants of indentured workers brought to the country at the time of a British protectorate around the beginning of the twentieth century. While Fijian and Fiji Hindi are the two main vernacular languages, English is used extensively as an institutional second language variety in the domains of education, administration, government, economy, and the media – as is the case in many post-colonial societies. Language attitudes studies to date have mostly focused on the interplay of these three languages in Fiji, overwhelmingly reporting a trend towards English bi- or multilingualism with continued support for the vernaculars (see literature overview in Zipp 2014a, 2014b). In the current study, however, we aimed to gauge attitudes towards different varieties of English that can be encountered in Fiji – for example, the colonial mother variety of British English, the varieties of Fiji's geographically closest and economically most influential neighbouring countries New Zealand and Australia, but also varieties of English present in global media and culture, such as American English or Indian English (Hundt et al. 2015; see Garrett et al. 2005 for a similar study design). In addition, I was interested in attitudes towards the local emerging variety, Fiji English (Zipp 2014a).

The questionnaire we distributed to capture these language attitudes was exploratory, consisting of four open-ended questions (with enough space to allow short answers of up to a couple of sentences), one general item called 'Comments', and a section tapping respondents' demographic and linguistic backgrounds. Respondents were recruited through face-to-face interaction and word of mouth recommendation as cluster sampling, with all students born in Fiji and enrolled at

the University of the South Pacific in Fiji's capital Suva qualifying for participation. The data stem from 149 respondents, of whom about two thirds were female and one third male; the respondents self-identified as ethnically Fijian (58), Fiji Indian (69), and various minority ethnicities. The sample's age range is skewed towards younger respondents, with 82.5 per cent being between 16 and 24.

The first three questions were designed to cover the three components of language attitudes, by asking participants about their opinion on the 'best' (cognitive component) and 'most pleasant' (affective component) English, and which English they use in written assignments (conative component). The evaluation of the data elicited by the first three open-ended questions confirmed one of our hypotheses, namely that norm orientation in Fiji is persistently towards British English, closely followed by American English – disproving claims that neighbouring antipodean varieties serve as regional epicentres (Hundt et al. 2015). British English ranked highest for all attitude components, even the notoriously low-performing affective component. Moreover, Fiji English was consistently entered in response to all three attitude components despite its norm-developing status, ranking up to third highest with regard to the affective component. Our open-ended questions elicited a range of varieties as answers, some of which we would most likely not have included in a version of the questionnaire using closed items (e.g. African/Nigerian English, South African English). More importantly, using an open-ended question format also uncovered an underlying conundrum of researching language attitudes in Fiji: Probably due to Fiji's colonial history and the fact that the local variety of English is still in the process of codification (with the first dictionary published only four years before our study), a number of individual answers suggested that British English had been 'appropriated by parts of the community as a "local" variety' (Hundt et al. 2015: 704). For example, one participant reported that 'while speaking we use Fiji english i.e British English because we learnt these English since our primary school' (faithful representation). This, of course, renders the high ratings of British English debatable – a fact that would not have been uncovered with a closed question format. On the flip side, our exploratory study produced some irrelevant answers (coded as 'other') because we did not guide our respondents towards the relevant types of varieties of English as a first or second language (examples for irrelevant answers include *German English*, *Queen's English*, *Old English*, *normal English*, *the proper or formal English language*, and *Roman & Irish*). This could have been avoided by introducing a definition such as 'English is spoken and recognised as a first language in a number of countries around the world. An example for this would be *British English*. In your opinion, . . .' followed by the respective open-ended questions. On the other hand, respondents might not have been aware of the existence of different varieties of English – in which case, answers classified as 'other' can be seen as a more faithful representation of language attitudes than the forced opinions a choice of closed questions would have produced.

For the specific study of attitudes towards the emerging variety of Fiji English (Zipp 2014a), the fourth question ('In which contexts do you prefer to use Fiji

English?') and the general comment section just below it were analysed. Note that we employed one of the strategies recommended to mitigate questions about socially non-desirable behaviour by 'assuming the behavior occurs and asking about details' (see Schleef 2014: 48; see also Chapter 9) because the label 'Fiji English' is widely associated with 'broken' or informal language (and the research setting was at Fiji's most prestigious tertiary education institution).

The analysis of the answers to question four followed a deductive approach, informed by previous studies of domains of language use, language functions, and attitudes. Categories that emerged from the data were added to the set in the process of content analysis described above. The resulting picture of self-reported language use of the local variety was surprisingly homogenous: Firstly, there was a general acceptance of the variety and its label (although of course the possibility of acquiescence bias needs to be acknowledged). Secondly, its use was mostly linked to the realm of spoken and informal written registers – predominantly mobile or computer-mediated communication – and the private domains of family and friends.

The open general section at the end of the questionnaire elicited short answers from around 50 per cent of the respondents; from these, attitudes towards Fiji English were coded in an inductive content analysis. These attitudes ranged from positive to negative, but an overwhelming majority of respondents expressed an instrumental dimension of their attitudes that centred around the notion of 'ease of understanding' – indicating a preference for a familiar pronunciation of English. Sutton et al. (2003) already pointed out that open-ended questions can elicit instrumental rather than affective components of attitudes and beliefs if the question wording does not explicitly address the affective dimension. Despite the limitations of our data, we were thus able to get a glimpse of the potential of open-ended response items to assess attitude ambivalence, attitude inconsistency, and embeddedness (Esses and Maio 2002). For example, one respondent claimed they liked American English the most, but mostly used Fiji English, while one other claimed that 'Fiji does not have its own English', only to later list various domains in which they use it themselves. Finally, the authors of a number of responses clearly see Fiji English in the context of their beliefs about prescriptive rules, for example 'Although I think I use British English during teaching and writing I am aware of lapses that occur due to the influence of my mother tongue and "movie language"'.

In sum, if I were to extend our exploratory study on attitudes towards varieties of English in Fiji to a larger-scale quantitative one, I would again choose to elicit attitudes towards Fiji English in – pointedly worded – open-ended questions, first and foremost because of the ambiguous status of the attitude object.

Suggested further readings

Dörnyei and Taguchi (2010); Esses and Maio (2002); Hsieh and Shannon (2005); Silver and Lewins (2014); Singleton and Straits (2018)

11   Perceptual Dialectology

Chris Montgomery

11.1   Introduction

   Perceptual dialectology (PD) is the study of non-linguists' perceptions of dialects and dialect variation. It seeks to understand where non-specialists think dialect areas exist, what the boundaries of these areas are, and what the features of a dialect or variety might be understood to be. Uncovering these matters permits perceptual dialectologists to assess the extent to which folk linguistic understandings of dialect variation tally with what is known about linguistic production. The methods of PD, which represent 'the dialectologist's-sociolinguist's-variationist's interest' (Preston 1999a: xxv) in folk perceptions of language use, are the main focus of this chapter. They rely mostly on providing respondents with as free a choice as possible about the data that they provide for researchers to analyse. In this way, PD strives to be as objective as possible, avoiding 'dialectologists' own cultural bias' (Butters 1991: 296) from interfering with the ways in which data is gathered. This chapter explores methods of data collection, processing, and interpretation. It mainly focuses on map-based tasks in PD, although it does consider the use of spoken data in Section 11.6.

   Worldwide, there has been longstanding interest in how non-specialists perceive dialect variation, with various methods employed to understand these perceptions. Some older approaches used questionnaire-based methods designed to access perceptions of similarity across various settlements (e.g. Weijnen 1946), whilst others asked respondents to estimate dialect differences (e.g. Sibata 1959). Although the contemporary approach to PD outlined below does not adhere to these older methods, some scholars have adopted them to address specific research questions. For example, Pearce's (2009) research in the North East of England used a similarity questionnaire and mapping technique as per Weijnen (1946). Despite this, contemporary PD is generally dependent on the approaches developed by Dennis Preston.[1] The summary of the development of the contemporary field presented below is necessarily brief, and readers who require further detail are referred to Preston (1999b) and Long and Preston

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1 Readers will note that Preston is also the originator of the term *language regard* (e.g. Preston 2011), which he defines as a field of study that addresses any and all reactions to language (i.e. not simply attitudinal reactions). Preston's work in perceptual dialectology is key to his conception of language regard.

(2002). Preston (1999a) provides a particularly useful guide to the long history of the study of dialect perceptions, and a commentary on the development of the contemporary method.

Preston's (e.g. 1989) early forays into perceptual dialectology were conducted largely in ignorance of the previous research mentioned above. This means that, despite attempting to address the same type of research question (i.e. 'What do non-specialists think about dialect variation?'), the approaches taken were quite different. Traditional dialect questionnaires were not deemed appropriate, and instead the methods that were developed adopted various approaches used in linguistics and beyond, as follows (from Preston 1999a: xxxiv):

1.   *Draw-a-map*: Informants draw boundaries on a blank (or minimally detailed) map around areas where they believe regional speech zones exist.
2.   *Degree of difference*: Informants rank regions on a scale of one to four (1 = same, 2 = a little different, 3 = different, 4 = unintelligibly different) for the perceived degree of dialect difference from the home area.
3.   *'Correct' and 'pleasant'*: Informants rank regions for correct and pleasant speech.
4.   *Dialect identification*: Informants listen to voices on a 'dialect continuum'; voices are presented in a scrambled order, and informants are instructed to assign voices to an area.
5.   *Qualitative data*: Informants are questioned about the tasks they have completed and are engaged in open-ended conversations about language.

For many, the draw-a-map task alone is perhaps what they understand PD to be. This technique asks respondents to draw dialect areas on a blank or minimally detailed map. This method has a debt to similar tasks used in perceptual geography, such as those undertaken by Lynch (1960) and Ladd (1970), which invited respondents to draw freehand maps of the city in which they lived. Groups of respondents' maps were aggregated, and composite views of the city emerged, allowing perceptually prominent landmarks and routes to appear. PD's adoption of the hand-drawn map technique also relies on large groups of respondents drawing maps that could later be aggregated. This approach has been adopted as a central method in numerous studies worldwide (e.g. Long 1999; Long and Yim 2002; Montgomery 2011a; Cukor-Avila et al. 2012; Stoeckle 2014; Cramer 2016).

The ranking tasks[2] (2 and 3) are more clearly recognisable as methods in language attitudes. Although a degree of difference task (2) is not usually

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2 These could be more properly termed *ratings tasks*, as they were not intended to involve a rank ordering of areas/states, but instead called for ratings along various scales.

included in language attitudes studies, it does echo older Japanese PD work (e.g. Sibata 1959) as well as adopting familiar rating scales (see Chapter 9). The third tasks are much more familiar to language attitudes scholars, using 'correctness' and 'pleasantness' scales that echo the most familiar cognitive components (Kristiansen et al. 2005; Chapter 1) of language attitudes. These ratings tasks will not be considered in the remainder of this chapter, although readers interested in this topic should consider Cramer (2018), which discusses the advantages of allowing the areas that will be rated to emerge from the draw-a-map task rather than being predetermined by the researcher.

Dialect identification is an area that has attracted some attention over the last forty years (e.g. Bush 1967; Williams et al. 1999; Clopper and Pisoni 2004), but was not something that Preston considered of central concern to perceptual dialectologists. Despite this, Preston does suggest that tasks based on his own voice allocation task (Preston 1993a; Plichta and Preston 2005) could be a useful addition to the PD method. The voice allocation task in Preston (1993a) saw respondents listening to voices from various locations on a north-south continuum in the United States and trying to accurately allocate them to their place on the continuum (see also Chapter 13 on the verbal-guise technique). Plichta and Preston (2005) updated this method, using manipulated tokens of /ay/ in the stimuli to investigate the extent to which monophthongisation affected where listeners placed a sample. Dialect identification and more recent developments in the use of voice data in PD are discussed in Section 11.6.

It is safe to state that the fifth method proposed by Preston, the collection of qualitative data, is the one that has had least attention paid to it. It is the focus of much of the work by Niedzielski and Preston (2003), and Montgomery (2014) deals briefly with interview data to contextualise other results. Others (e.g. Cramer 2010) have used qualitative data from questionnaires to help their analyses, but the wholesale use of interviews in PD is something that has yet to be fully realised, despite Preston's continued exhortations (Preston 2019).

As an approach that asks respondents specifically about variation in language, PD is typically understood as a direct method of studying language attitudes. It has some value in understanding more about the affective components of respondents' attitudes to language, although it is especially useful for accessing cognitive aspects of language attitudes. In particular, PD can help understand more about the ways in which respondents understand the world around them, accessing the links between language and social identity. The draw-a-map task, for example, provides a view into the ways in which respondents categorise their own and others' dialect areas, and labelling tasks (as well as the qualitative approach noted above) can open a window to the stereotypes that they have about the speakers of other varieties. The ratings tasks that often accompany other aspects of the method mean that PD can tap into the main evaluative dimensions of language attitudes (status and solidarity), even if the draw-a-map task does not always permit this type of investigation.

11.2   Strengths and Limitations

The general adherence to the principle of free choice recommends PD as a method. This means that the respondent faced with a blank or minimally detailed map can decide whatever they want to in respect of the areas they draw, label, or annotate. Therefore, PD does not pre-judge what respondents should do and attempts to allow them control over what they consider to be interesting or of note with respect to their perceptions of language variation. Similarly, if one takes Cramer's (2018) approach to ratings tasks, the areas that a respondent rates are dependent on what they have drawn. As discussed below, a free-choice approach to voice-based tasks means that findings may emerge that would not have done in more controlled research (see Montgomery and Moore 2018). Free choice methods put respondents in the driving seat, allowing them to control the data that they provide. In this way, they can help researchers look anew at what they know (or think they know) about the relationship between language and language users.

The strength of the draw-a-map method seems clear: It provides freely given data on all manner of information relating to the perceptions of dialects. One can quickly acquire information from relatively large numbers of respondents about perceptions of dialect area placement and extent, as well as information about dialect areas labels, attitudes towards the areas drawn, and (ideally) examples of features.

These attitudinal data may well be quite different from the more typical data uncovered in traditional ratings tasks. As such, although information relating to traditionally understood attitudinal components can be inferred, this process will necessarily be more complicated than what is possible with ratings tasks. Of course, the additional use of ratings tasks can provide further attitudes data in a more familiar numerical format. Dialect identification tasks can help uncover salient features in stimuli, and qualitative data can not only be analysed for their content vis-à-vis dialect perceptions. There are established methods for processing ratings data (see Chapters 9 and 12), and a range of existing techniques can be applied to qualitative data (see Chapters 7 and 10).

PD does of course have its limitations. For example, although large volumes of data can be collected in a short time using the draw-a-map task, processing these data can be laborious and involves a relatively steep learning curve. As well as this, the free-choice methods in draw-a-map and dialect identification tasks can mean that the data supplied by respondents is often messy, which can result in challenges relating to data processing and interpretation. Finally, although one of the aims of the draw-a-map task is to collect some data on attitudes, this cannot be guaranteed as respondents may not add any to their maps.

11.3   Research Planning and Design

When employing a draw-a-map task, the most important consideration must be the type of base map that is to be used. Decisions must be made

about the type and volume of detail to be included on the map. Generally, more detail will result in more geographically accurate maps. This means whether a respondent knows the general area in which a dialect area is supposed to be. Ensuring an appropriate level of geographical accuracy amongst the data supplied by respondents is key.[3] However, one must be aware that it is possible to inadvertently prime respondents to draw particular areas if certain choices are made. For example, adding a location to a sparsely labelled map will likely result in an (unknown) small number of respondents being influenced sufficiently to draw a line around that location because they feel that it is in some way important.

Preston's initial approach to a base map was least likely to prime respondents in any way, as he chose to use a wholly blank map of the United States. However, 'the resulting confusion was so great that it became necessary to use a map with state lines' (Niedzielski and Preston 2003: 46). This is not such a problem if a researcher is interested in perceptions of dialect variation across a whole (very large) country. If one wishes to examine perceptions in a smaller country, the inclusion of internal borders might cause confusion, or suggest too rigidly what it expected to be drawn. The choice of base map, then, can be fraught with difficulties as the researcher seeks to balance geographical accuracy against the potential to lead respondents.

Lameli et al.'s (2008) paper provides vital understanding of the impact of base map choice on the data that respondents supply. Working using a map of the whole of Germany, they presented separate groups of respondents with base maps that included varying amounts of detail.[4] Their results (2008: 59–80) demonstrated that the type of map changed the data that respondents gave in many different respects. Not only did the mean number of areas drawn on the map differ (from 9.58 for the combination map to 7.35 for the relief map), but the dialect areas added by respondents were also different according to the base map used. Although certain areas (e.g. Bavarian and Hessian) were always drawn by the majority of the respondents in each group, other areas sometimes did not appear (e.g. Kölsch for the relief map). The rank ordering in terms of numbers of lines drawn for dialect areas was also different depending on the type of base map used. This points to the need to carefully consider the type of base map used for draw-a-map tasks.

If collecting data in an area or country that has not yet been subject to a PD study, piloting should take place to assess the most appropriate type of map to be

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3 For example, when piloting a draw-a-map task for use in England, the author's first attempts at collecting data with a wholly blank map resulted in respondents adding a Birmingham area just to the south of Newcastle upon Tyne (an error of around 250 km in a country of only around 650 km from north to south).

4 State border; state border plus relief; state border plus main rivers and tributaries; state border plus federal state borders; state border plus 15 major cities (>800,000 inhabitants); state border plus 102 cities; combination map including the state border, federal states, cities, and rivers (Lameli et al. 2008: 58).

used. If one wishes to replicate or reproduce a prior study, one would be well advised to use the same base map to maintain consistency between the studies. The author's own approach, which resulted in the data discussed in the case study below, was the result of extensive piloting. The final method saw respondents being shown a location map and having to add the names of several cities to their draw-a-map task for their response to be included in the final dataset.

The instructions that are provided for respondents before they complete their maps are also an important consideration. Some researchers choose a relatively open request. For example, echoing Preston's (1999c: 361) approach, Evans requested that respondents 'Draw a line around places where you think people's English sounds different' (Evans 2013: 272), before adding labels to these areas. Such a simple request was also adopted by Jeon (2013: 30) in her research in South Korea. The author's own research has used a more detailed set of instructions (e.g. Montgomery 2018), which were constructed in order to access particular information (such as a 'north-south divide' line in England) and to instruct respondents that the interest was in dialect variation (rather than variation in the use of languages). Generally, the simpler the instructions are, the easier they will be for respondents to understand, but it is important to consider what data is required in order to address one's research questions, which may add complexity to the instructions presented to respondents.

Further practical considerations for perceptual dialectologists are the numbers of respondents that one should engage when collecting data. The draw-a-map technique should be considered as primarily a method used to elicit quantitative data, although there is also scope for it to gather qualitative data. For this reason, a healthy number of respondents is required for map aggregation to be successful. As a guide to the numbers of respondents required, Preston's work in Michigan used 147 respondents (Preston 1999c: 362), Montgomery's work in England used 275 respondents from three separate locations (Montgomery 2007: 142), and Jeon's dataset included maps drawn by 436 respondents (Jeon 2013: 40). At the lower end of numbers of respondents, Montgomery's research on the Scottish-English border included data from 151 respondents (75 from England, and 76 from Scotland, see Montgomery 2014), and Cramer used 23 respondents from the Louisville area in her research (Cramer 2010: 112). Researchers will of course want to think carefully about more than sample size when designing their studies. Socio-demographic variables such as age, gender, education, class, etcetera may have to be considered, in which case researchers should aim to ensure that there is a balanced sample that contains sufficient numbers of respondents in each cell in order to produce meaningful aggregate maps. Those doing research using this method in the future should also try to address the deficiencies in the representation of previous work. Montgomery's work (e.g. 2012) only examined location and gender, for example.

A final consideration for researchers using the draw-a-map task, once ethical approval and informed consent has been collected from respondents, is one that has been introduced due to the onward march of technology. As discussed in the

next section, one of the challenges of draw-a-map data is getting it from a paper map filled in by hand to a digitised dataset ready for aggregation. It has recently become possible to remove the paper map from the equation, and simply to have respondents add data via a digital interface. This approach has recently been pioneered by Drummond and Carrie (2019) in their *Manchester Voices* project using a cloud-based interface running ArcGIS online (ESRI 2019). This online approach affords scalability to the research, as one is not restricted to face-to-face interactions, and does away with the necessity of digitising maps by hand. Despite these benefits, however, such an approach is not free to implement (as ArcGIS online requires a subscription), and the lack of face-to-face contact with respondents may not be viewed as unambiguously positive.

11.4   Data Analysis and Interpretation

Once data collection using the draw-a-map task is complete, the researcher will end up with a number (typically quite a large number, see above) of paper maps. Depending on the instructions that have been given to respondents, these maps will contain differing types of labels, comments, perceived features, etcetera, although they will all have several lines drawn that indicate something about perceptions of regional (dialect) variation. These could be large or small, circular, square, or any other shape in between, for example, single lines connecting two external boundaries (i.e. state borders or coastline). They could be labelled or not, and they may be labelled differently by person (e.g. one person could provide the label 'Manchester' for the Manchester dialect area, whereas others could write 'Manc' or 'Manky'). These differing practices can create problems for the aggregation of dialect areas.

Prior to aggregation, one should consider whether decisions need to be made regarding counting specific areas, or if all the data is to be aggregated together. This will depend on the set of instructions that were provided to respondents. Some research (e.g. Montgomery 2012) asks respondents to draw specific dialect areas, whereas others (e.g. Evans 2013) have taken the (more typical) approach of simply asking for respondents to indicate where people speak differently. This means that when producing aggregate maps there are different approaches that can be taken. When respondents have been asked to draw and label specific areas, these can be counted and aggregated individually. In research in which respondents have simply been asked to draw where people speak differently, aggregate maps can be created from all lines, and queries can be run later in order to extract certain label types (e.g. Evans 2013).

The use of Geographical Information Systems (GIS) to produce aggregate maps has become standard in PD. A GIS is a system that can be used 'for capturing, managing, analyzing, and displaying all forms of geographically referenced information' (ESRI 2011a), and as such the technology lends itself well to working with PD data. Evans (2013: 276–277) briefly explains her use of

GIS in Washington State. A full account of how to use GIS for PD is given in Montgomery and Stoeckle (2013), who outline how to implement a method in ArcGIS 10 (ESRI 2011b) involving five steps:

1.   Scanning paper maps
2.   Georeferencing scanned maps
3.   Tracing lines from scanned maps
4.   Producing aggregations of the traced lines
5.   Outputting finished aggregate maps

What each of these steps involves, and how they contribute to the analysis of draw-a-map data is discussed here. The first stage of the method is perhaps the most obvious: scanning the paper maps. This is required to input line data into the GIS. Because of the number of paper maps that are likely to have been collected from respondents, scanning each map one at a time is not a feasible solution to this problem. A scanner with a feeder or hopper should instead be used, as this will automate the process of placing each map to be scanned. Scanned maps should also be of reasonable quality in order for the lines to be seen in the digital versions of the maps.

Once scanned, all maps should be georeferenced, which is vital in order to ensure aggregation can be completed properly. Georeferencing is the process of using 'coordinate systems in order to tie data to a set position on the earth's surface' (Montgomery and Stoeckle 2013: 57), which means that, once completed, all maps will align with known points on the earth's surface (and each other). This process can be done manually for each map involving a mouse to click on known points on both the scanned map and a base map in the GIS, and then using the programme to align the map with the base map based on the clicked points. Scripts have been developed which will georeference all maps based on the manipulation of a single map, which saves considerable time.

Once georeferenced, it is now possible to trace the lines that respondents have added to their maps. Here, the researcher can choose only to trace lines for specific areas, or they can digitise every line that has been added to the maps. For each line that is traced, other data can be attached to it (including socio-demographic data, dialect area names, comments, or other data deemed important). This additional data can then be used to query lines and produce aggregations based on these queries. Once all lines have been traced, the GIS can be used to produce the aggregations. Using an online interface as per Drummond and Carrie (2019) removes all the data processing steps until this stage.

GIS software works with two different data types: vector data and raster data. Vector data 'represents geographic features as points, lines, and polygons' (ESRI 2020), whereas raster data works on the basis of a 'surface divided into a regular grid of cells' (ESRI 2020). The lines that a user traces into the GIS are vector data, and the aggregation process involves converting these vector data into raster data which allows the GIS to overlay multiple areas and calculate the levels of agreement over the placement and extent of the areas respondents drew on their maps.

This results in the familiar 'hotspot' maps produced by perceptual dialectologists, with darker shading representing the highest levels of agreement over the recognition of an area, and lighter shading showing less agreement. The final stage of the aggregate map production process is to output the final map(s), which should include standard map elements such as a scale bar, key, and north arrow.

Once final maps are outputted, they can be examined on their own simply for what they say about perceptions of the placement and extent of specific dialect areas (e.g. the first part of Evans 2013). If social data have been collected, the differences between different groups' perceptions can be looked at (see Jeon 2013). Aggregate maps have additional value in letting the researcher know which dialect areas are important to non-linguists and can help to understand the changing dialect landscape. For example, Montgomery (2016) has tracked perceptions of the Manchester dialect area, and has seen it become an increasingly important dialect area for non-linguists over the past thirty years, something now reflected in research on linguistic production (e.g. Schleef and Flynn 2015; Baranowski 2017). Most importantly however, and most pertinently for this volume, draw-a-map tasks 'dig deeply into the conceptual world [for] beliefs about speakers and their varieties' (Preston 2010: 11).

11.5   Further Important Considerations

It will have been noted from the above that there was no mention of any method for comparing maps, either between different social groups, or in relation to production data. This is because, thus far, there has been no effective method of comparing aggregate maps other than visual inspection. This is not necessarily a bad approach, although it is not as objective as a technique that uses the underlying data to examine the extent to which maps are similar or different. There are current attempts to do just this using QGIS (QGIS Development Team 2020), which is likely to replace the use of ArcGIS (which is propitiatory software).

QGIS is a geospatial programming environment (Oxoli et al. 2017) which has an active user base that has developed numerous free tools and plugins. One such plugin is the Hotspot plugin (Oxoli et al. 2016, 2017), which adds the ability to compute Getis-Ord Gi* statistics for maps. This results in visual outputs that tell the user where features with either high or low values cluster spatially (Ord and Getis 1995), providing a statistically robust method to understand where areas are most recognised. The resultant hotspot maps can be inspected visually in QGIS, looking for similarities and differences between different groups' perceptions of dialect areas, and further correlation analyses can also be conducted outside of the programme in order to examine the extent of agreement between groups' perceptions. Approaches such as this will likely become more important in PD as researchers seek to understand just how different the perceptions of particular groups are, and what this means for non-linguists' shared understandings of language variation and their attitudes towards it.

11.6   New and Emerging Trends

As discussed above, the use of vocal stimuli in dialect identification tasks is one of Preston's (1999a) five suggestions for the study of PD. Preston suggests allocating stimuli to slots on a continuum, as in Preston (1993) and Plichta and Preston (2005). This method is some way from the draw-a-map task in terms of the way in which respondents provide data. A method that more closely aligns with the draw-a-map task is reported in Montgomery (2011b). This approach involved respondents listening to several voice samples, completing rating scales, and placing the samples on a map indicating where they thought the speakers came from. The resulting data are examples of 'free choice' placements, echoing the strength of the draw-a-map task. Others have subsequently performed similar map-based tasks using individual words (e.g. Lawrence 2015; Watt et al. 2019), with Lawrence producing contour maps indicating where the majority of placements occurred.

Despite the similarity between these map-based placement tasks and the draw-a-map task, there are several potential drawbacks to them. The first centres on a lack of understanding about how respondents read maps, and whether the cognitive load of this task has an impact on the way in which respondents place voice samples (which is a more pressured task than drawing dialect areas). In addition to this, if longer stimuli are used, it is not clear what it is about the sample that results in a particular placement. This is not something unique to this type of task (see Campbell-Kibler 2006: 64), and is something that can be overcome using single words or short manipulated stimuli (e.g. Lawrence 2015; Watt et al. 2019). Despite this, Montgomery (2011b) also suggests that it is not simply geographical factors that play a role in sample placement, but that attitudinal factors may also be important (see Williams et al. 1999).

For this reason, the perceptual dialectologist interested in the freely given perceptions of speakers may want to take a different approach that does not involve the use of maps. There have been a number of these types of tasks used in recent years based on allowing respondents to react freely to stimuli in order to access perceptions of salient features (e.g. Watson and Clark 2013, 2015; Montgomery and Moore 2018). Such methods have the advantage of letting respondents select features of interest, rather than finding out how they react to pre-selected features deemed important by the researcher.

Watson and Clark's (2013, 2015) approach, which has since been used by Levon et al. (2019), involves the use of a slider that is operated by a respondent as they hear a voice sample. This permits respondents to indicate the extent to which they agree with a statement. In the case of Levon et al. (2019), this was phrased as a candidate's chance of doing well in an interview for a job, whereas Watson and Clark (2015) asked how 'posh' a speaker sounded. The data collected by the slider tool can then be examined according to features present in the samples that were played to respondents, in order to answer questions such as 'how salient is the NURSE-SQUARE merger' (Watson and Clark 2013) or

simply to understand which of many features may be noticeable to listeners (Watson and Clark 2015). Data such as these could then be used to grasp what it is in an accent that might influence the attitudes which are held by groups of people. The slider method means that the researcher must infer salience from the co-occurrence of features in stimuli with slider movements from groups of respondents. In this way, one is not able to be sure that specific features resulted in certain types of reaction. Indeed, Levon et al.'s (2019) work shows that individual features did not appear to provide the motivation for the general (upward) trend in real-time evaluation.

Recent work by Montgomery and Moore (2018) sought to introduce more certainty into the process of investigating which features might be salient to non-linguists by developing a real-time reaction method that was different to that created by Watson and Clark (2013). Their approach, which echoes that used by Soukup (2009) was less about evaluation in real time and more interested in assessing attention to features in real time using a tool that ran in a web browser. Their method used a click-and-comment approach that asked respondents to listen to stimuli and provide ratings data of the type typically collected in language attitudes research. Respondents then listened to the sample once more and on this listening were requested to use a mouse button to click on the screen when they heard anything in the recording that sounded regional. Once respondents had listened to the stimuli and added their click data, they were then asked to review each of their clicks with the aid of fragments of the transcript and recording that immediately preceded their click. The use of this method meant that Montgomery and Moore (2018) were able to assess with a degree of certainty which features were regionally salient to listeners. They found that context was important for noticeability, and that listener expectations vis-à-vis the stereotypes they had of speakers from particular locations could heavily influence the features that respondents paid attention to. Such findings have important implications for PD tasks which involve spoken data, as the seemingly straightforward task of asking listeners to place speakers or words on a map may not be as unproblematic as it first seems.

11.7   Case Study: Language Attitudes in English and Scottish Perceptions of Dialects

This case study is based on my research that took place on the Scottish-English border in the late 2000s.[5] It examined perceptions of dialect variation in Scotland and England amongst communities either side of

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5 My research took place prior to the independence referendum that was conducted in 2014, but during the first (minority) government of the Scottish National Party, whose policy is for Scotland to become an independent nation again.

Ihalainen's (1994: 248) 'strong linguistic barrier' that runs between the two countries. In this way, I sought to update my earlier research that had only examined perceptions of dialect variation in England (see Montgomery 2007). My prior research had shown, in line with previous findings using the draw-a-map task (e.g. Preston 1986), that where a respondent was from would be likely to effect the areas that they drew on a map. Thus, as well as updating the perceptual picture to include Scotland, I was also interested in examining the perceptions of dialects in different countries separated by a stable, porous, and uncontested border.

My previous research (Montgomery 2012) has shown the importance of proximity in PD. This follows Tobler's 'first law of geography' that 'everything is related to everything else, but near things are more related than distant things' (Tobler 1970: 236). Thus, in the draw-a-map task we would expect that respondents will draw relatively detailed maps of nearby dialect divisions and that their maps will be less detailed further away from their home locations. Preston recognised the influence of distance too, but also introduced the notion of evaluation in map drawing, claiming that a general finding from draw-a-map tasks was that respondents would 'draw stigmatized and the local areas most frequently' (Preston 1999a: xxxiv). Proximity is therefore important, but other factors can also play a role in how the draw-a-map task is completed. I have examined the role of some of these factors in my work, demonstrating the influence of factors such as 'cultural prominence' (Montgomery 2012: 568) and barrier effects.

Cultural prominence allows us to account for the drawing of dialect areas that are 'most established in the national consciousness' (Montgomery 2012: 568). This could be due to stigma (as noted by Preston 1999a), or other factors such as media coverage of a variety or location. The effect of cultural prominence is to bring certain varieties closer to respondents, so that they are (virtually) more proximal to the map-drawer. Barrier effects work in the opposite way, resulting in interruption to the way information flows between places (see Gould and White 1986: 153). This means that two places that are relatively close to each other, but which have a border of some kind between them may not know as much about each other as two similarly close places that have no barrier between them. It is this idea that my research on the Scottish-English border sought to test.

I selected five survey locations for my study based on their proximity to the Scottish-English border. Three locations were in Scotland, and two were in England. All were fewer than 45 kilometres from the border, although road and rail networks meant that some were practically closer to the border than others. The survey locations can be seen in Figure 11.1, and the breakdown of respondents is given in Table 11.1.

My research used the approach outlined above, involving the use of a draw-a-map task which requested that respondents complete a structured draw-a-map task in a classroom setting. Blank paper maps were given to respondents who

Table 11.1 *Respondents by country and location, with age, population of settlement, and the distance from the Scottish-English border*

	Scottish locations			English locations	
	Galashiels	Langholm	Moffat	Brampton	Hexham
Informants	18	20	38	55	20
Mean age	16 years	16.5 years	16 years	17 years	16.5 years
Population	ca. 13,500	ca. 2,300	ca. 2,500	ca. 4,000	ca. 11,000
Distance from border	31 miles	7 miles	27 miles	11 miles	27 miles

Notes: Readers will note that the respondents in this case study are teenagers. This is typical of most perceptual dialectology research (although not all, see e.g. Jeon 2013), and tends to be the result of the convenience of being able to access large numbers of respondents in one place at one time. This is not ideal, and more research is needed that examines the perceptions of a wider range of age groups.
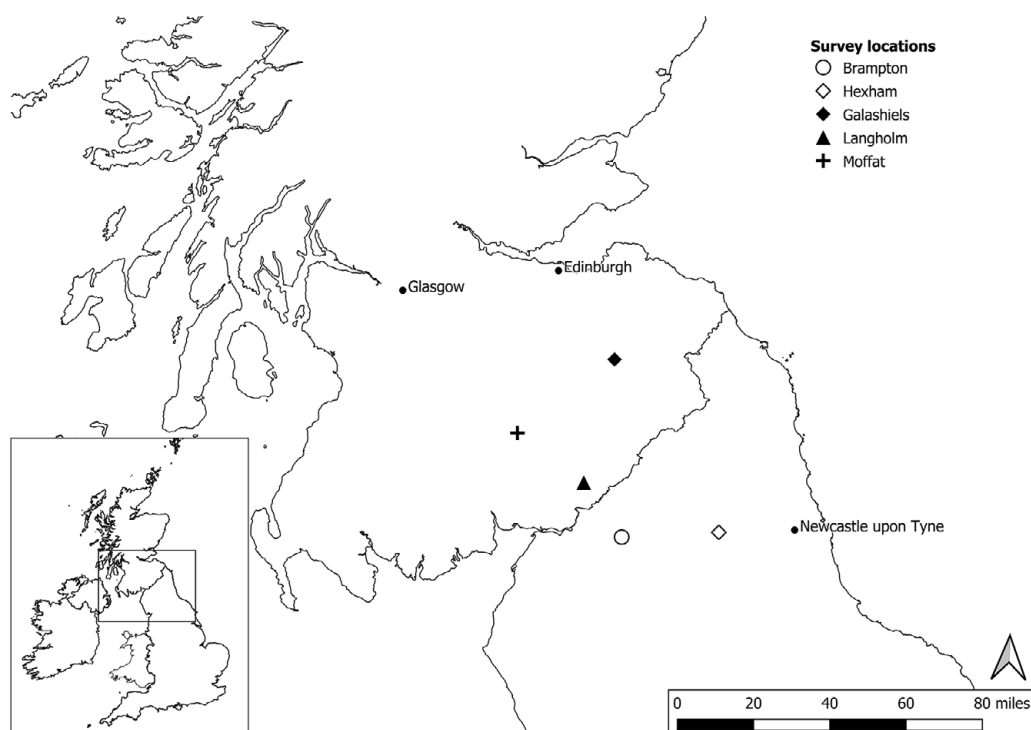
Figure 11.1 *Survey locations*
Figures 11.1, 11.5, 11.6, 11.7, and 11.8 contain National Statistics data © Crown copyright and database right 2020, NRS data © Crown copyright and database right 2020, OS data © Crown copyright [and database right] 2020. Source: NISRA: Website: www.nisra.gov.uk.

were asked first to complete consent forms and fill out personal details. They were then requested to label a selection of cities on the maps whilst looking at a projected location map before they drew dialect areas on the map. Subsequently, they were asked to label the areas they had drawn, and to provide any other information about the areas they deemed appropriate. An example of a completed map can be seen in Figure 11.2, which is a typical example of the approach taken by respondents in this study.
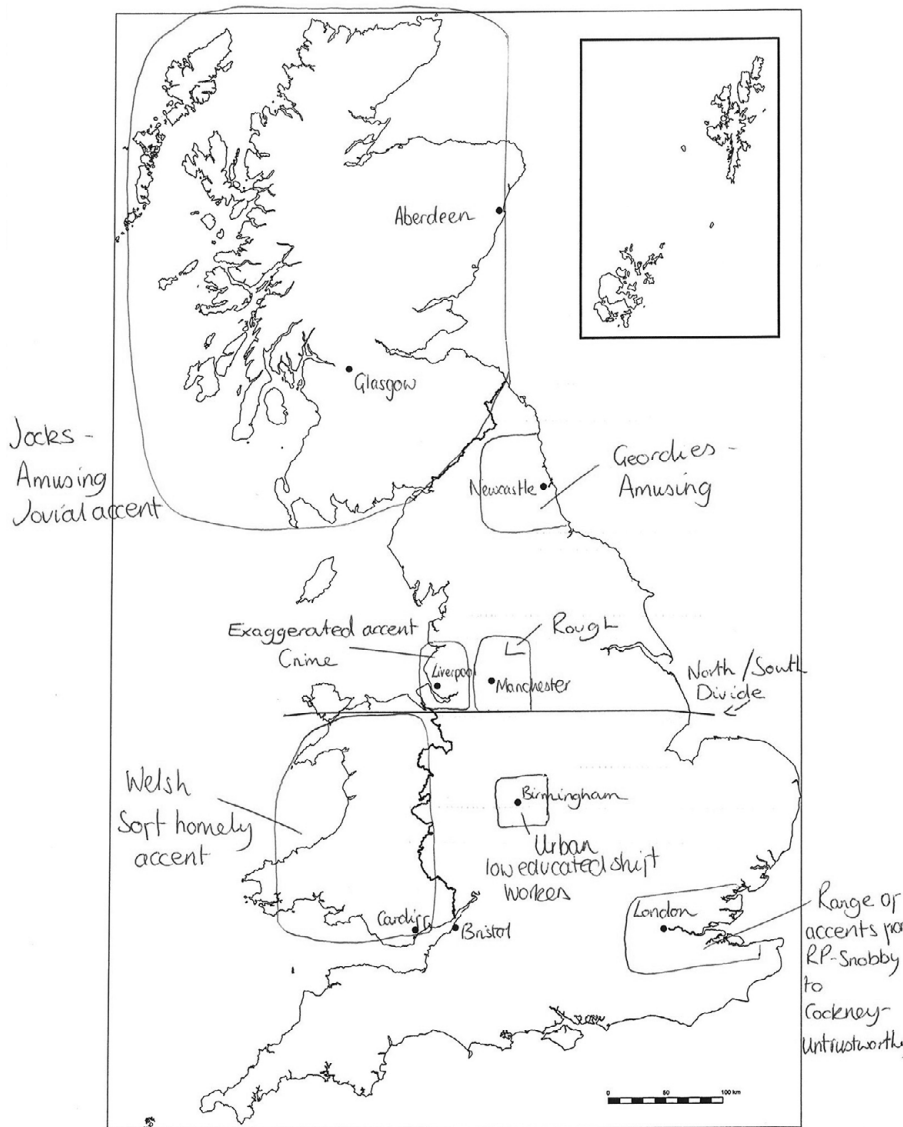
Figure 11.2 *Completed draw-a-map task (seventeen-year-old male from Brampton, England)*

Table 11.2 *Number of lines drawn for dialect areas by Scottish (grey) and English respondents*

Scottish respondents (n=76)			English respondents (n=75)		
Rank	Dialect area	Recognition (%)	Rank	Dialect area	Recognition (%)
1	Geordie	53 (69.9)	1	Geordie	55 (73.3)
2	Weeji	53 (69.9)	2	Scouse	53 (70.7)
3	Scouse	52 (68.4)	3	Brummie	41 (54.7)
4	Welsh	46 (60.5)	4	Cockney	40 (53.3)
5	Brummie	38 (50.0)	5	Manc	40 (53.3)
6	Cockney	27 (35.5)	6	Welsh	36 (48.0)
7	Manc	27 (35.5)	7	Cumbrian/Carlisle	31 (41.3)
8	Aberdeen	13 (17.1)	8	Yorkshire	23 (30.7)
9	Borders	12 (15.8)	9	Scottish	17 (22.7)
10	Strong/broad Scottish	11 (14.5)	10	Weeji	15 (20.0)

Notes: The dialect areas are labelled according to the name given by those who completed the draw-a-map task. Therefore, colloquial names for dialect areas are given in most cases. These refer to locations as follows: 'Geordie': Newcastle upon Tyne; 'Weeji': Glasgow; 'Scouse': Liverpool; 'Brummie': Birmingham; 'Cockney': London; 'Manc': Manchester. Other labels given refer to counties, countries, or cities in the UK.

The data from all maps were counted and digitised, providing information relating to the relative prominence of dialect areas by survey location and country (Scotland or England). I present country-level data in this chapter, first in the form of Table 11.2, which shows the ten most drawn areas by respondents from each country and reveals some proximity effects, with a greater recognition of Scottish areas from Scottish respondents (shaded in grey). However, what I consider to be most striking is the similarity between the two countries' respondents in the very similar recognition of English dialect areas. For Scottish respondents there appears to be very little in the way of a barrier effect of the Scottish-English border.

If we turn now to aggregate maps of dialect area perceptions, shown in Figures 11.3 and 11.4, we can see that perceptions of English dialect areas are very similar for both Scottish and English respondents. This is not the case for perceptions of Scottish dialect areas. Table 11.2 shows that there is a greater perception of variability in Scotland for Scottish respondents, as well as that the most frequently drawn dialect area for Scotland amongst English respondents was 'Scottish'. In this way, the map in Figure 11.2 is typical of the approach taken towards Scottish dialect variation by English respondents, consisting of a single line drawn around the country. This suggests a unidirectional barrier effect between Scotland and England.

Scottish respondents' perceptions of variation in England

English respondents' perceptions of variation in England

Figure 11.3 *English dialect area for Scottish (a) and English (b)*
respondents
Dialect area labels are sized according to the rank-order of
recognition. This figure is reproduced from Montgomery (2012) with
permission of John Wiley & Sons, Inc.

Scottish respondents' perception of variation in Scotland

English respondents' perception of variation in Scotland

Figure 11.4 *Scottish dialect area for Scottish (a) and English (b)
respondents*
*Dialect area labels are sized according to the rank-order of
recognition. This figure is reproduced from Montgomery (2012) with
permission of John Wiley & Sons, Inc.*

It is possible to examine this unidirectional effect by comparing the geographical perceptions of the two most recognised English and Scottish dialect areas, respectively: Geordie (Newcastle upon Tyne) and Weeji (Glasgow). Figure 11.5 shows the aggregate maps for the Geordie area, and Figure 11.6 shows the results of a Getis-Ord Gi* analysis on the aggregations.

These reveal a striking similarity between the placement and extent of the Geordie area for English and Scottish respondents, which is confirmed by a highly significant Pearson correlation test ($r(2498) = .98$, $p = <0.001$). Figure 11.7 shows the aggregate maps for Weeji and seems to reveal a more focused perception of the area for Scottish respondents and a larger and more diffuse perception of the dialect by English respondents. This can be seen in the further eastward spread of the higher agreement level for the English respondents. This is confirmed by the Getis-Ord Gi* analysis on the aggregations, shown in Figure 11.8, which shows that the English respondents' 99 per cent confidence hotspot is larger (meaning that more respondents drew this larger area), even encompassing Edinburgh and one of the test locations (Galashiels).

Although there is also a very significant result of a Pearson correlation test (r $(2488) = .95$, $p = <0.001$), this does indicate slightly less correlation between the two sets of respondents in relation to the Glasgow dialect area as compared to the Geordie data. Taken together with the data in Table 11.2 as well as the different visualisations in Figures 11.5–11.8, it can be argued that there is more similarity between the perceptions of the placement and extent of the Geordie area between English and Sottish respondents as compared to the Glasgow area for the two sets of respondents. The Getis-Ord Gi* analysis permits the statistical comparison of the two datasets, revealing slight but statistically significant differences, and removing reliance on visual comparison alone.

As well as highlighting benefits of the field, it is hoped that this chapter has outlined the areas in which PD may now be moving. The use of GIS for processing draw-a-map data is now well established, but this should not be viewed as an end in itself. Rather, the use of sophisticated mapping software means that we are now able to analyse map data in a robust and systematic fashion, including examining the statistical differences between perceptions of variation. The short section on reactions to recorded data will hopefully also illustrate the direction in which PD may move with respect to examining listener perceptions. Although the task of asking language users what they think about language variety and variation may seem a simple one, PD has much to offer language attitudes scholars, as well as others interested in language variation, change, and ideologies.

Suggested further readings

Cramer and Montgomery (2016); Long and Preston (2002); Montgomery (2012); Montgomery and Stoeckle (2013); Preston (1999b)
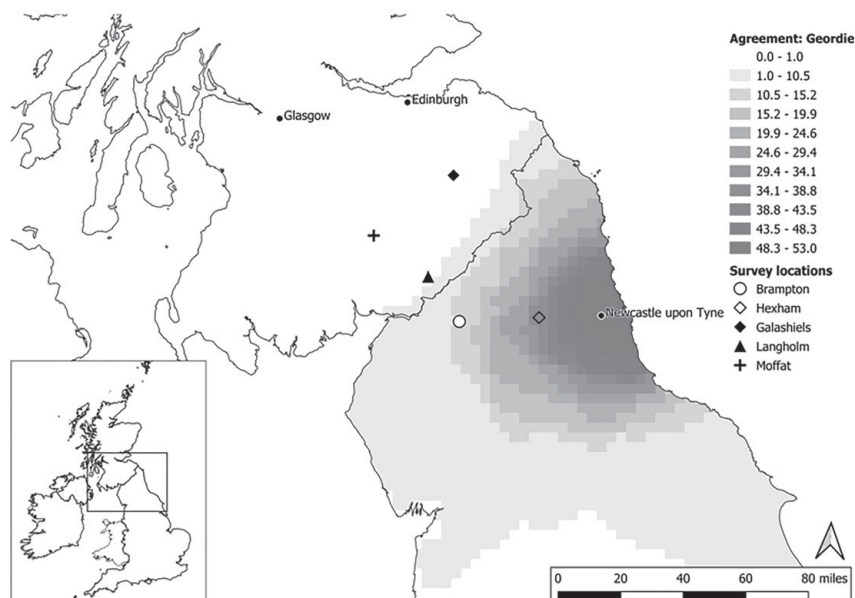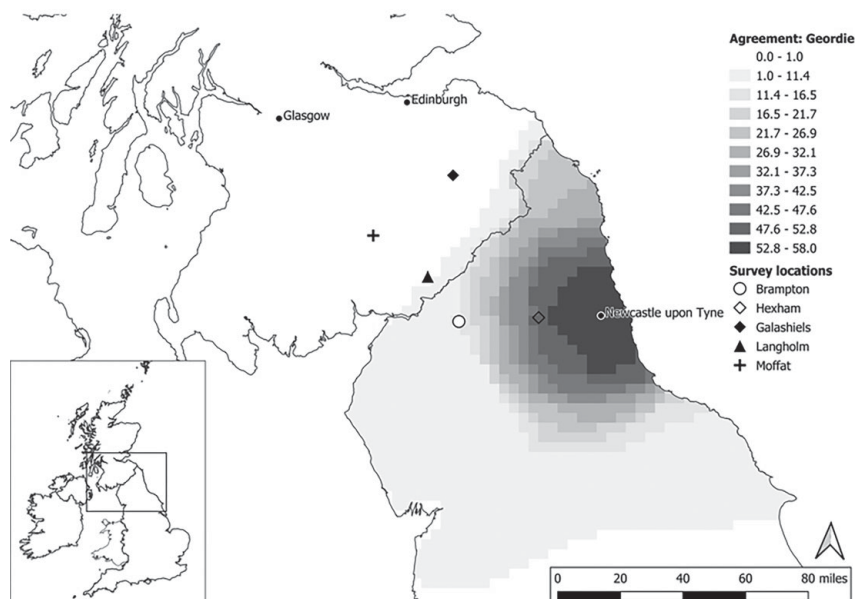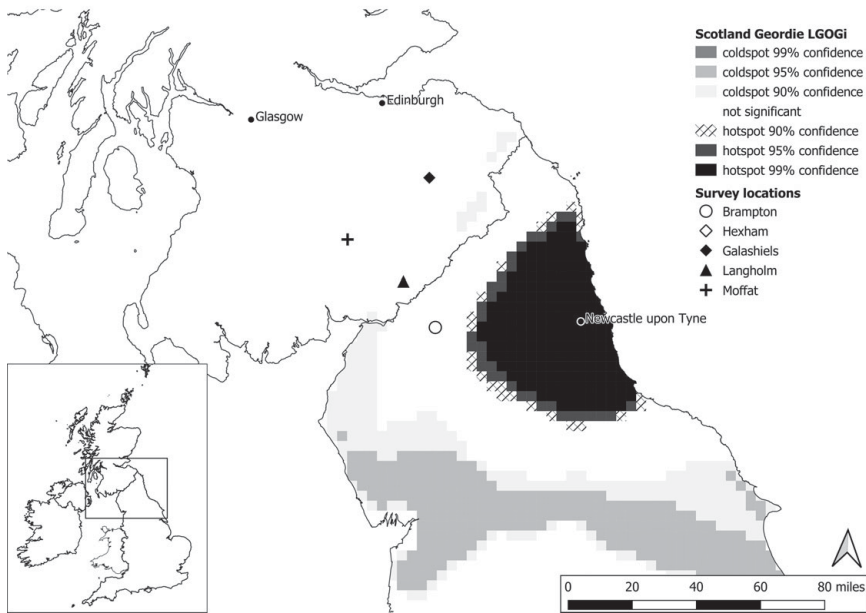
Figure 11.5 *Aggregate maps for 'Geordie' dialect area for Scottish (a) and English (b) respondents*

Scottish Getis-Ord Gi* analysis
of 'Geordie' dialect area

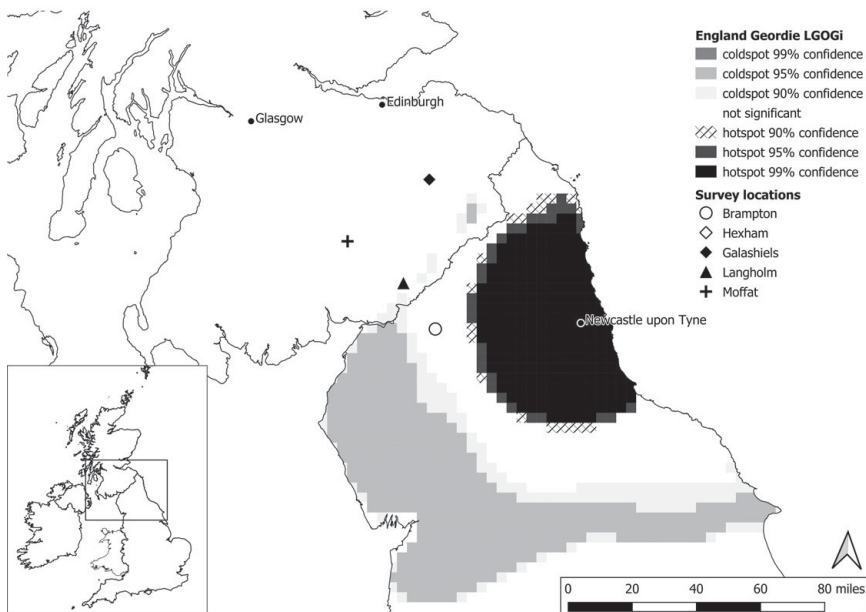## English Getis-Ord Gi* analysis
of 'Geordie' dialect area

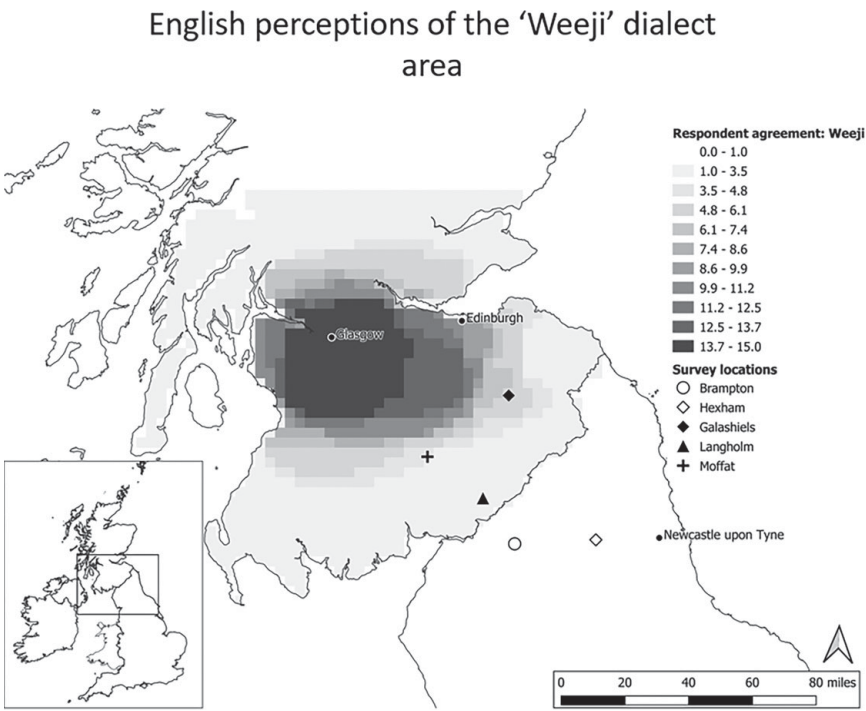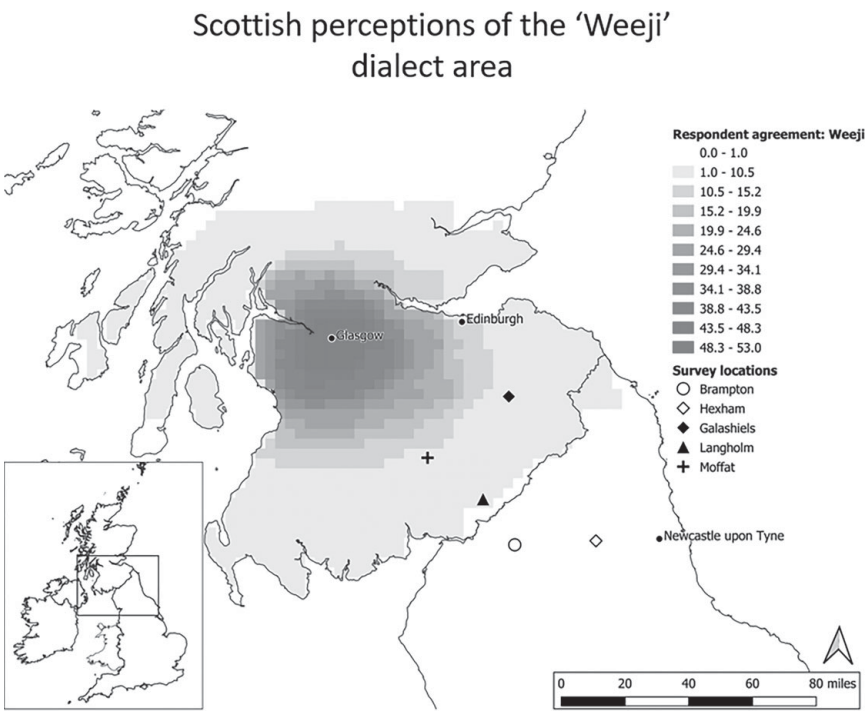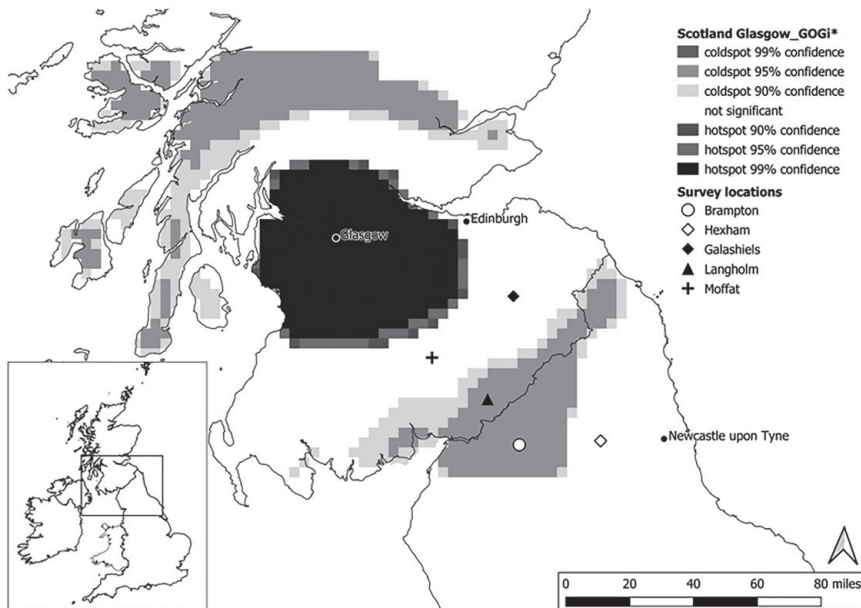Figure 11.6 *Getis-Ord Gi* hotspot maps for 'Geordie' dialect area for Scottish (a) and English (b) respondents*

Scottish perceptions of the 'Weeji' dialect area

English perceptions of the 'Weeji' dialect area

Figure 11.7 *Aggregate maps for 'Weeji' dialect area for Scottish (a) and English (b) respondents*

Scottish Getis-Ord Gi* analysis of the 'Weeji' dialect area

English Getis-Ord Gi* analysis of the 'Weeji' dialect area
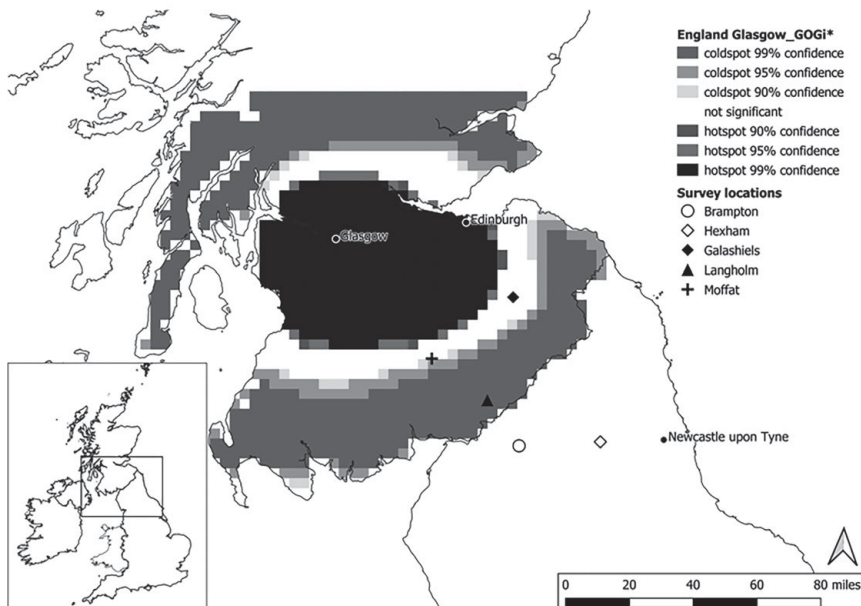
Figure 11.8 *Getis-Ord Gi* hotspot maps for 'Weeji' dialect area for Scottish (a) and English (b) respondents*

PART 3

Indirect Methods of Attitude Elicitation

12 The Matched-Guise Technique

Verónica Loureiro-Rodríguez and Elif Fidan Acar

12.1 Introduction

The matched-guise technique (MGT) is an experimental speech perception method to elicit covert attitudes towards linguistic varieties (i.e. accents, dialects, languages) or specific features. The MGT relies on three main assumptions: firstly, that a speaker's language choice shapes the impression listeners have of them; secondly, that listeners often agree on the stereotypical traits associated with a specific way of speaking; and thirdly, that direct methods such as questionnaires usually do not successfully elicit individuals' privately held attitudes towards speakers of different linguistic varieties.

The MGT was originally developed by the Canadian psychologist Wallace E. Lambert and his associates (Lambert et al. 1960) to investigate attitudes towards English and French in Montreal, the largest urban centre in the province of Quebec (Canada). Lambert et al. (1960) were interested in how Anglophone and Francophone speakers perceived each other, and predicted that the differences in the evaluation of English and French voices would reflect the attitudes that listeners had towards members of their own as well as the other language group.

In the basic MGT set-up, participants or *judges* listen to the voices of several bilingual speakers who are each reading the same text in two linguistic varieties. Each of these recordings constitutes a *guise*. Guises are *matched* in that it is the same speaker reading the same text (i.e. equivalent semantic content) twice; the difference between the two guises is only the linguistic variety in which the speaker delivers the text. Unaware that they are listening to the same speaker more than once, the judges are asked to use a Likert rating scale (for more details, see Section 12.3.6) to evaluate each guise on a series of traits (e.g. friendliness, intelligence) that usually reflect the two main evaluative dimensions of language attitudes, that is, status and solidarity (see Chapter 1). The linguistic variety is the only difference between the two guises produced by each speaker, and prosodic and paralinguistic features (e.g. speech rate, pitch, voice quality) are kept constant as far as possible. Thus, any differences in ratings will be interpreted as the judges' attitudes towards the linguistic varieties and the communities associated with such varieties, rather than towards the speakers themselves.

Experimental studies of this kind are generally assumed to reveal more private reactions than other methods because 'respondents have the attitude object

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(a language, a variety, or even a feature of a variety) presented to them indirectly, triggering subconscious evaluation of the linguistic element (the attitude object) under the guise of being asked for an evaluation of the speaker, not his or her linguistic production' (Preston 2009: 270). The main contribution of the MGT is that, by using the same speaker for the different varieties of interest, the number of confounding variables is reduced. In other words, the MGT design allows researchers to rule out potential speaker-level features, which increases the internal validity of the experiment. It should be noted that the goal of this indirect method for studying language attitudes is to determine 'the role of language differences in arousal of social stereotypes' rather than keeping participants unaware of the fact that there are language differences in the experiment (Pharao and Kristiansen 2019: 3). In other words, while the possibility of interpreting participants' responses as implicit attitudes (or 'subconsciously offered attitudes', as proposed by Pharao and Kristiansen 2019) resides precisely on maintaining such deception, and researchers make efforts to prevent participants from realising that they have heard the same person using more than one variety, MGT studies do not attempt to conceal the presence of language-based differences.

In Lambert et al.'s (1960) original matched-guise experiment, the judges were sixty-six French- and sixty-four English-Canadian students who listened to the recordings of four male speakers reading a passage in French and in English. Two other recordings from different speakers were used as *filler voices*, 'allowing the maximum possible interval between successive presentations of the English and French guises of any speaker' (Lambert et al. 1960: 44). In other words, recordings from the same speaker (i.e. guises) were interspersed with those of other speakers to minimise the chances of participants noticing they had heard the same speaker more than once. After participants had rated all voices, they were asked to complete five questionnaires. (These questionnaires do not constitute an integral part of all matched-guise experiments – but as Lambert et al.'s findings illustrate, they can enhance the insights to be gained by means of this method.) First, they were presented with all traits and were asked to rank them in terms of their desirableness in friends. Then, they completed a prejudice scale which measured attitudes towards outgroups. Next, participants were asked to complete fourteen sentences designed to elicit attitudes towards English speakers and French speakers (e.g. 'The more I get to know English Canadians, . . .'). Afterwards, they were also asked to indicate their preference of English-speaking or French-speaking Canadians as marital partners, friends, and political candidates, amongst others. Finally, participants were assigned a score according to their degree of bilingualism, which was determined by asking participants how well (i.e. not at all, a little, fairly well, or fluently) they could speak, read, and write in English and French.

Lambert et al. (1960) found that English-speaking judges rated English guises more favourably than French guises on seven traits (i.e. height, good looks,

intelligence, dependability, kindness, ambition, and character), and French guises more favourably than English guises only on one trait (i.e. sense of humour) while there was no difference for two other traits (i.e. leadership, self-confidence). As for French-speaking judges, they rated English guises more favourably than French guises on ten traits (i.e. height, good looks, leadership, intelligence, self-confidence, dependability, ambition, sociability, character, and likeability), and French guises more favourably than English guises only on two traits (i.e. kindness and religiousness). Lambert et al. also found that (1960: 47) the more the French speakers showed 'preference for and favorable attitudes towards their own group the less they overrate[d] English guises'. However, this correlation between attitude towards their own and other groups was insignificant for the English-speaking participants, which the researchers explained as a 'reflection of the influence of community-wide stereotypes of English and French-speaking Canadians' (1960: 51). Overall, Lambert et al. (1960) interpreted the more positive evaluations of English as a result of the high socio-economic status of English-speaking people in Montreal at that time, and went on to indicate that this finding reflects a process by which minority groups adopt the stereotyped values of the majority language group in their community.

Since Lambert et al.'s seminal study, the MGT has been adopted to explore attitudes in diverse multilingual settings such as Catalonia (Woolard and Gahng 1990), Galicia (Loureiro-Rodríguez et al. 2013), the Basque Country (Echeverria 2005), Quebec (Kircher 2014b), Peru (Wölck 1973), Croatia (Filipin 2015), Switzerland (Hogg et al. 1984), Austria (Soukup 2013c), Nigeria (Ihemere 2006), and Malaysia (Puah and Ting 2015). It has also been used to investigate attitudes towards different regional English accents in diverse locations such as the United Kingdom (Bourhis et al. 1973), Hawaii (Ohama et al. 2000), California (Bradac and Wisegarver 1984), and Australia (Ball 1983). Variations of the MGT have also been employed to examine attitudes towards code-switching in Texas (De la Zerda Flores and Hopper 1975; Rangel et al. 2015), Puerto Rico (Guzzardo Tamargo et al. 2019), Hong Kong (Gibbons 1983), and Tunisia (Lawson and Sachdev 2000). The MGT has also been adapted to explore attitudes towards lexical diversity (Giles et al. 1981; Bradac and Wisegarver 1984), phonetic variables (Díaz-Campos and Killam 2012), vocal fry (Yuasa 2010), forms of address (Moyna and Loureiro-Rodríguez 2017), quotatives (Dailey-O'Cain 2000; Buchstaller 2006), and perception of sexuality (Campbell-Kibler 2007; Levon 2014), and for use among infants (see Chapter 15). Variants of the MGT include the verbal-guise technique (see Chapter 13), which employs a different speaker per guise, and the theatre-audience technique (see Chapter 14), in which the audience in a theatre is asked to comply with a task over the loudspeaker system in different guises on successive nights. These three indirect methods of attitude elicitation are part of the so-called *speaker evaluation paradigm*, an umbrella term referring to speech perception experiments (Giles and Billings 2008; Kircher 2016c).

12.2   Strengths and Limitations

12.2.1   Strengths

The MGT is most commonly lauded for allowing the elicitation of attitudes in an indirect and private manner (Garrett et al. 2003; Giles and Billings 2008; Garrett 2010). Consequently, participants' responses are less likely to be sensitive to social desirability bias, as opposed to those elicited through direct methods such as interviews or questionnaires (Garrett et al. 2003: 57; see also Chapters 7, 9, 10). Another strength of the MGT lies in its design, which allows control over the voice variable (as the linguistic varieties being contrasted are produced by the same person) and makes it possible to manipulate linguistic features only, thus minimising the chance of private attitudes being determined by extraneous variables (Giles and Billings 2008: 190).

The fact that the MGT has been replicated in multiple multilingual, multi-dialectal, and multicultural contexts allows researchers to compare findings and identify similar attitudinal patterns in other communities (Garrett et al. 2003). Finally, this large body of attitudinal work has led to the identification of the two aforementioned main dimensions and associated traits employed to evaluate linguistic varieties, namely *status* (e.g. confident, wealthy, educated) and *solidarity* (e.g. friendly, generous, funny). The widespread use of these two dimensions (often alongside *dynamism*; see Chapter 1) across studies to explain language attitudes has greatly contributed to researchers' understanding of language variation and language use (Giles and Billings 2008: 190).

12.2.2   Limitations

Despite its demonstrated advantages, the MGT is not exempt from criticism (see Garrett et al. 2003 for a detailed account of the major problems with the MGT). An important limitation is that exposing participants to a long series of recordings of different linguistic varieties makes such varieties more salient than they would otherwise be in natural interaction (Garrett et al. 2003; Garrett 2010). In other words, when participants are required to rate voices on a list of personal traits, they may focus on linguistic properties more than they would in a non-experimental setting, in which they would rely on non-linguistic cues as well. A related limitation concerns the possibility that participants may misidentify the varieties they are rating, and the researcher has no guarantee that the respondents have indeed identified them correctly unless an explicit question in this regard is included in the experiment (see also Chapter 13).

A further issue relates to the lack of style-authenticity of the stimuli as the recordings are often prepared by having speakers read out a written passage, which does not render the spontaneity of natural oral speech and thus may influence participants' ratings. Relatedly, one must be cautious when employing a MGT in diglossic settings as participants' ratings might not reflect their

attitudes towards the linguistic variety in itself but rather its suitability to the particular domain in which it is being used (e.g. leaving a voicemail vs. reading a newspaper article; Fishman and Agheyisi 1970). In diglossic settings, it would be beneficial to employ two types of recordings representing different domains: for instance, a dialogue between a student and a teacher about a book, and another between two friends about a movie (Solís Obiols 2002: 5).

A critical drawback of the MGT concerns the possibility of not finding a single individual who can produce all the varieties required for the study with sufficient fluency. If the speaker is not sufficiently fluent, the authenticity of their guises will most likely be questioned by participants. For this reason, many studies have employed the verbal-guise technique instead of adhering to the traditional MGT design (Chapter 13).

Another issue relates to the content of the texts that speakers are asked to reproduce for the recordings. Such content is often described as 'neutral' and is intended to minimise the possibility that participants react to the content of the text rather than to the linguistic variety in which it is being performed. Yet, as Garrett (2010: 59) points out, we all 'interpret texts as we read them, drawing upon pre-existing social schemata', which might result, for instance, in participants of different ages interpreting the text and judging speakers differently. (For a further discussion of the strengths and limitations relating to the speaker evaluation paradigm, see also Chapter 13.)

To overcome the validity issues derived from the MGT, a mixed-methods approach that combines the MGT with direct data collection methods such as questionnaires or interviews is recommended, as seen, for example, in Hoare (2001), Ihemere (2006), or Kircher (2014b; for a more detailed discussion of mixed-methods approaches in language attitudes research, see Chapter 21).

12.3   Research Planning and Design

12.3.1   Ethics Approval

Before getting started, it is important to note that because this methodology involves human participants, it will be necessary to seek approval from the research ethics board or equivalent body in order to record speakers whose voices will be used as stimuli, pre-test materials, and finally collect data with the MGT. The submission and approval procedures, as well as what types of research projects require review, differ greatly from institution to institution; it is crucial to familiarise oneself with the requirements and guidelines of the university/institutional ethics board during the development of any research project. Although some institutions may not require ethics approval for recording voices for stimulus recordings, many will. Alternatively, using data from publicly available corpora, public social media profiles or YouTube videos for the guises may allow bypassing the ethics requirement for this part of the MGT.

Nevertheless, it is always a good idea to consult first with the ethics board to make sure all aspects of the MGT comply with their requirements.

12.3.2   Pre-Tests and Pilot Projects

Although it is not always possible to test every aspect of a MGT study due to time and/or funding constraints, it is important to recognise that pre-testing will lend validity and reliability to the study. Research work on pre-tests of questionnaires (Perneger et al. 2015) recommends a default sample size of thirty participants, and argues that small pre-test samples (five to fifteen participants) may not be enough to detect problems in the research instruments; but a number this large is unfeasible for most studies in the social sciences. Thus, aiming for a group of five to fifteen participants should often suffice. It is important to note that the socio-demographics of the pre-test participants should be as similar as possible to those of the target audience. It is advisable to pre-test the stimulus recordings to make sure each guise represents the linguistic variety or feature it is meant to represent, as well as the personal traits, rating scales, and any other materials to be incorporated in the MGT experiment (e.g. demographic and linguistic questionnaires; see also Chapter 10 for further information regarding the pre-testing of questionnaires).

If the MGT experiment is to be conducted to investigate attitudes regarding an understudied linguistic variety or community, it will be beneficial to first conduct a small-scale preliminary study. For this pilot, data should be gathered through direct methods to elicit overt attitudes, such as interviews (see Chapter 7), focus groups (see Chapter 8), or even a map-labelling task as in the tradition of perceptual dialectology (see Chapter 11). A pilot study allows the researcher to obtain information on some of the existing perceptions of these linguistic varieties or features; it enables the researcher to evaluate the feasibility of using the MGT; and, ultimately, it means the researcher can design a more culturally relevant study. Furthermore, the pilot study can also be used to inform the decision on the sample size for the main study.

12.3.3   Selecting the Text

After deciding upon the linguistic varieties or features of interest, the text for the auditory stimuli must be selected. The length of the stimulus recordings varies across studies, with some researchers using very short sentences (e.g. Chappell 2016; Regan 2019) and others using longer passages often between 30–45 seconds long (e.g. Loureiro-Rodríguez et al. 2013; Levon 2014; Rangel et al. 2015; Gooskens et al. 2016; Moyna and Loureiro-Rodríguez 2017; Guzzardo Tamargo et al. 2019). Shorter texts make for shorter experiments, which help minimise the saliency of the linguistic varieties as well as reducing the risk of participants' fatigue or boredom. Also, it is more feasible to present

more guises (and filler voices), and thus gather more evaluations from the participants, if the recordings are short (Kircher 2016c: 199).

Although aiming for a neutral text may not be realistic (Garrett 2010: 59), potentially controversial topics of political or ideological nature should be avoided, as well as those that are language-related (Kircher 2016c: 199). Lambert et al. (1960) used a passage of philosophical nature, but more recent studies have opted for lighter topics such as opinions about food (Yuasa 2010), a voicemail to a family member (Moyna and Loureiro-Rodríguez 2017), or a letter to a friend describing a recent trip (Echeverria 2005). While researchers usually create their own text for the stimulus recordings, it is also possible to make use of public domain texts. For instance, the *Rainbow Passage* and *Comma Gets a Cure* are commonly used in perceptual research for the wide variety of phonemic contexts they represent (IDEA).

Having speakers read the same text allows a great deal of control over the content of the guises. However, participants will most likely perceive they are listening to a read passage (especially in the case of long excerpts) as opposed to spontaneous speech, which may affect their evaluations. Alternatively, it is possible to make use of oral speech collected in a naturalistic environment such as a sociolinguistic interview or during a speech production task (e.g. describing the content of a picture or giving directions on a map). While this type of speech will result in more spontaneous guises, it is not possible to control the precise content of the excerpts, which in some studies has been shown to impact participants' evaluations (e.g. Campbell-Kibler 2006).

Although MGT studies have traditionally relied on spoken guises, some researchers have employed written stimuli instead. For instance, Anderson and Toribio (2007) prepared several texts representing different types of code-switching based on the fairy tale *Little Red Riding Hood*, and told participants that those texts were transcriptions of oral narrations by Spanish-English bilinguals. For her study of attitudes towards the quotative *be like*, Buchstaller (2006) opted for written texts that were transcriptions of naturally occurring interactions as to avoid suprasegmental and prosodic variables associated with different regional UK dialects, which might have had an effect on participants' evaluations. Controlling for these and other independent variables, such as speaker sex, represents an obvious advantage – but using written texts also has drawbacks. Specifically, participants may be reacting negatively to the written representation of features that they associate with face-to-face linguistic interactions. In other words, what may be perceived as valid in oral communication, may not elicit the same reaction in written form. (For a further discussion of text selection in the speaker evaluation paradigm, see Chapter 13.)

12.3.4   Recruiting Speakers to Record the Stimuli

Researchers are usually not allowed to directly invite friends or family members to participate in a study as they may feel coerced, that is, they

may not feel free to volunteer or decline, or to withdraw their consent at any time. Thus, it is necessary to think of other recruitment options, such as messages to listservs, posters, social media postings, announcements in classrooms, etcetera. Recruiting students for any kind of research project is common amongst academics, but educators should avoid recruiting students enrolled in their own courses, as they may feel pressured to volunteer. Hiring professional actors to record the stimulus recordings is also an option, but their rates for voice-over narrations can be quite high.

Whenever possible, more speakers than guises needed for the actual MGT experiment should be recorded, as this will allow the researcher to discard the recordings of speakers whose voice quality may make them stand out (e.g. nasal voice, low pitch). Also, those extra recordings can be used as fillers voices. When setting up the MGT experiment, filler voices should be placed between the target recordings to decrease the likelihood of participants realising they are listening to the same speaker more than once, which will increase the reliability of the study (Kircher 2016c: 200). A filler voice can also be used as a practice voice at the beginning of the MGT experiment so that participants familiarise themselves with both the auditory stimuli and the experimental procedure (Kircher 2016c: 200; see also Genesee and Holobow 1989).

Speakers recording the stimuli should be close in age, unless speaker age is a factor of interest in the study. Regardless, the age of the speakers should be taken into consideration in the interpretation of results as the perceived age of the person in the recordings may impact individuals' attitudes towards the languages, linguistic varieties or features under investigation. The sex of the speaker has been shown to play a role in some contexts (e.g. Loureiro-Rodríguez et al. 2013; Rangel et al. 2015) but not in others (e.g. Guzzardo Tamargo et al. 2019); thus, when recruiting participants to record the auditory stimuli, this must be kept in mind. Traditionally, MGT experiments have employed male voices only (e.g. Lambert et al. 1960; Bourhis et al. 1973; Genesee and Holobow 1989; Giles et al. 1995; Kircher 2012), but many studies have used a combination of male and female voices (e.g. Lawson and Sachdev 2000; Echeverria 2005; Ihemere 2006; Loureiro-Rodríguez et al. 2013; Rangel et al. 2015; Moyna and Loureiro-Rodríguez 2017; Guzzardo Tamargo et al. 2019). MGT studies using only female voices are less common (Bourhis et al. 1975; Woolard and Gahng 1990; Bender 2005; Carlson and McHenry 2006).

12.3.5   Recording the Stimuli

To ensure high-quality recordings and eliminate ambient noise, it is best to make the audio recordings in a sound-proof recording booth.[1] Alternatively, audio recordings can be made in a small-sized room with soft

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1 See Podesva and Zsiga (2013) for a detailed account of the most common methods for recording acoustic data.

surfaces like couches, pillows or rugs, as these absorb sound and make the room less reverberant (unlike windows and hard surfaces). If a written text is being used, speakers should familiarise themselves with the passage before the recording session, and should also be encouraged to record it several times so as to have several recordings of the same text to choose from for the final experiment.

Regardless of the type of text selected for the stimulus recordings, when examining attitudes towards linguistic varieties, it is important to pre-test the recordings to make sure they represent the linguistic varieties they are meant to represent. As Preston (1989: 35) suggests, this can be simply addressed by asking pilot participants, who should have similar sociolinguistic and demographic characteristics as those in the main study, to identify where each of the voices is from. Pre-test participants can also be asked how natural and authentic (or native-like) each of the guises sounds (e.g. Giles et al. 1995; Regan 2019). If the majority of the pre-test participants do not correctly identify the linguistic variety presented in the stimuli or if they think the guises sound unnatural or inauthentic, then one must rethink the stimuli because otherwise the internal validity of the study will be at stake.

As mentioned above, for the pre-test, one should aim to recruit at least ten to fifteen people (although the more the better) that have the same linguistic background as the speakers whose voices they will be evaluating. Pre-test participants should not take part in the final experiment. Thus, a question about having previously participated in any aspect of the project should be included, and data from those participants who answer affirmatively can be excluded. Some online platforms (e.g. MTurk, CloudResearch) can automatically exclude participants or prevent them from signing up a second time, thus the researcher does not need to rely on participants' self-report.

12.3.6   Selecting the Traits and Rating Scales

As noted above, language attitudes are traditionally considered to have two main dimensions: status and solidarity. Status refers to the power, economic opportunity, and upward social mobility associated with a linguistic variety – that is, its utilitarian value and overt prestige. Solidarity, on the other hand, refers to the feelings of appreciation and belonging elicited by a linguistic variety, that is, its ingroup loyalty and covert prestige. In a MGT study, the status dimension is represented by traits such as *intelligent*, *ambitious*, *educated*, or *successful*, while solidarity encompasses traits such as *friendly*, *warm*, *honest*, or *funny*.

Although certain traits are consistently used across MGT studies (e.g. *intelligent*, *friendly*), it is advisable to pre-test traits used in previous studies and elicit others to ensure those used in the final experiment are meaningful to all participants. Ultimately, researchers should avoid being biased in their selections of

traits, which is something even Lambert et al. (1960: 48) recognised their study may have suffered from, as they may have had 'omitted characteristics which [had] value for French speaking Canadians'.

Pre-testing the traits and the texts to be used for the stimulus recordings can be done in the same session. For instance, in their study of attitudes towards different types of Spanish-English code-switching in Puerto Rico, Guzzardo Tamargo et al. (2019: 307) presented the texts in written form to ten bilinguals and asked them to both comment on the way the switches were carried out and to describe the type of person who they thought would use each of those code-switched varieties.

Once the traits have been selected, one must decide whether to use a Likert scale or a semantic differential scale (see also Chapter 9). In these scales, participants are asked to rate items on their level of agreement, and many variations are possible in terms of the anchors employed (Examples 1 and 2). Once respondents have answered, numerical values are assigned to each anchor (e.g. strongly agree = 5, strongly disagree = 1) to facilitate quantitative analysis.

(1)   The person you've just heard sounds friendly
       Strongly agree   Agree   Neutral   Disagree   Strongly disagree
            ☐   ☐   ☐   ☐   ☐
(2)   The person you've just heard sounds friendly
       Very much   Not at all
            ☐   ☐   ☐   ☐   ☐

Semantic differential scales (Osgood et al. 1957) are commonly used in MGT studies and involve presenting pairs of opposite traits (although true opposites may be hard to find) at either end of a five- or seven-point scale (Example 3). Garrett (2010: 55) indicates that some studies opt for an even number of points (e.g. Chappell 2016; Regan 2019) to avoid the ambiguity of the mid-point (this also applies to Likert scales; see also Chapter 9). In other words, if a participant chooses the mid-point in an odd-number scale, it is difficult to ascertain whether they have a neutral attitude or whether they simply do not know what answer to give for that particular item.

(3)   The person you've just heard sounds
       Unfriendly   1   2   3   4   5   6   7   Friendly

The main advantage of semantic differential scales is that they can be completed more rapidly than Likert scales, minimising the chances of participants overthinking their answers and thus reducing the possibilities of social desirability biases (Garrett 2010: 55–56).

12.3.7   Creating a Demographic Questionnaire

What questions to include in the demographic questionnaire that complements the MGT experiment will largely depend on each individual study. The most common variables to consider are age and sex as well as gender, and

one may also wish to consider level of education achieved, ethnicity, place of birth (e.g. rural vs. urban origin), first language(s), and rate of bilingualism, if applicable to the specific context. It is important to keep in mind, though, that if a study contains a large number of variables, a large sample size may be needed to perform statistical analyses. Hence, it is advised to design the study carefully, ideally consulting a statistician for the required sample size.

12.3.8   Setting up the Experiment

Traditionally, MGT studies have been carried out on paper, with researchers preparing individual booklets for each participant and collecting data in classrooms (Lambert et al. 1960; Loureiro-Rodríguez et al. 2013; Kircher 2014b; Rangel et al. 2015). However, in recent studies it is more common to find participants completing the experiment in a lab (Guzzardo Tamargo et al. 2019) or through online survey platforms such as Qualtrics (Regan 2019) or SurveyGizmo (Chappell 2016).

Notwithstanding the medium of choice, there are a few considerations to keep in mind when setting up a MGT. First, one must consider how to contextualise the experiment, that is, how to introduce the rating task to participants. The opening of a MGT experiment always involves a certain degree of deception, so as to distract participants from the real research purpose of the study and the fact that they will be hearing the same speaker more than once. Often, participants are simply told that they will be taking part in a study examining how people judge others on the basis of their voices alone, with participants being asked to rate each person on the given traits based only on how they speak, and to do so as intuitively and quickly as possible (e.g. Giles and Sassoon 1983; Brown and Cichocki 1995; Ohama et al. 2000; Rindal 2010). Other times, however, researchers use more elaborate deception. For instance, Seggie et al. (1986: 132) asked participants to imagine they were 'personnel employers for a large company' responsible for 'recruiting qualified employees'. Similarly, Cargile (2000: 171) told participants that they were 'part of a study to determine how job applicants are evaluated'. Once participants have completed the MGT experiment, however, they must be debriefed about the real research purpose of the study and its implications (Giles and Sassoon 1983), and they should be invited to contact the investigator if they wish to discuss the matter further (Giles et al. 1995) or would like to receive a summary of the research findings.

To minimise the chances of participants realising they have heard a speaker more than once, they are explicitly told that they will be listening to the recordings of x number of people (i.e. one person per recording) or even that the speakers belong to the same family in order for them to dismiss any perceived similarity as based on family ties (Chappell 2016: 362). The different recordings of each speaker (i.e. each guise) should be maximally spaced apart to minimise the chances of participants realising they have heard the same speaker more than once. Employing filler voices, one or more of which can be used as practice voice

at the beginning of the experiment, will aid in this regard. One may also consider avoiding order effects by randomising the order in which the recordings are presented (e.g. Guzzardo Tamargo et al. 2019) or by creating two different versions of the experiment with a balance of speaker gender and linguistic variety for each version (e.g. Rangel et al. 2015; Regan 2019).

At the end of the experiment, it is habitual to ask participants what they believed the study was about, and whether they have any comments on any aspect of the experiment. These questions will indicate whether participants were in fact deceived, and will allow the researcher to remove from the analysis the responses of those who realised they had heard the same speaker more than once (Kircher 2016c; see also Genesee and Holobow 1989: 201).

12.3.9   Validity Issues Related to the MGT

Validity refers to whether a test truly measures what it is meant to measure. The MGT is meant to unearth covert attitudes towards the linguistic varieties or features of interest, but if the design or the data collection are flawed, then the data to be analysed will also be flawed. If a MGT study lacks validity, then it will not accurately reflect the attitudes of the group being investigated.

The importance of pre-testing all instruments to be used in the MGT experiment to ensure its validity cannot be overstated. If sources are available, researchers should pre-test the texts for the stimulus recordings to make sure they faithfully represent the varieties or features of interest, as well as the voices to be used as guises to guarantee they sound fluent and authentic. To increase the validity and meaningfulness of the results, researchers should use traits that are relevant to the population whose attitudes are being investigated. As mentioned above, these traits can be obtained by eliciting descriptions from the pre-test participants.

If the MGT study focuses on linguistic varieties, it is crucial to verify that participants are able to identify them correctly in order to guarantee that the ratings reflect the attitudes participants have towards the target varieties (Preston 1989). Asking pre-test participants to identify the varieties represented in the recordings will help minimise the risk of selecting flawed stimuli. Furthermore, participants should be asked to identify the linguistic varieties they are rating, and the responses of those who misidentified them should be removed from the analysis to ensure validity. Along the same lines, the responses of participants who realise that they have listened to the same speaker more than once should also be excluded.

Finally, it is important to control for non-linguistic variables that may affect the results. In other words, researchers must ensure that the observed differences in the ratings are due to the different guises rather than to imbalances in the group of participants. Potential variables affecting the results (such as age, gender, education, or social identity) should be included in the demographic questionnaire and incorporated into the statistical analysis.

12.4   New or Emerging Trends

New technology has come to the aid of researchers wishing to implement the MGT to investigate attitudes towards segmental and suprasegmental variants. Researchers can now make use of Praat software (Boersma and Weenink 2020) to segment out a feature found in the text delivered by a speaker and paste it in a new recording to create another guise that only differs with regard to that precise feature. In other words, digitally manipulating the recording allows for a great deal of control across guises, ensuring that the only thing that varies is the segmental or suprasegmental linguistic feature of interest (Drager 2018: 63). These advances in digital technology make it easier and cheaper to create believable guises, and the last decade has witnessed a surge in MGT studies aimed at exploring attitudes towards specific variables such as sibilant duration as index for the perception of gay male sexuality (Smyth et al. 2003; Levon 2014) or the social perception of [ʃ] and [tʃ] in Andalusian Spanish (Regan 2019) and of intervocalic /s/ voicing in Costa Rican Spanish (Chappell 2016).

12.5   Data Analysis and Interpretation

Data from MGT studies have been traditionally analysed using descriptive statistics such as mean or median ratings for different guises and conducting a series of paired t-tests or employing analysis of variance (ANOVA) procedures to assess whether there is a statistically significant difference between the mean ratings of different guises. While these approaches provide direct and easy interpretations for the study of language attitudes, they may not always sufficiently address the specific needs and data characteristics of MGT studies.

The key aspects to consider when analysing data obtained with the MGT can be summarised as follows:

1. *Dependence patterns in data*: Each participant provides multiple ratings, both for different guises on the same trait and for the same guise on multiple traits. These ratings may not be considered independent as they reflect the rating style of each participant. An appropriate statistical strategy should account for the underlying dependence patterns in the ratings when analysing the data.

2. *Type of response data*: The primary response in MGT studies consists of participants' ratings, which are obtained using a Likert scale questionnaire typically with 4–5 ordered categories. Hence, statistical approaches tailored for continuous data should be employed with caution.

3. *Number of guise*s: Of interest in many MGT studies is to assess differences in attitudes towards two co-existing linguistic varieties. In many cases, the study design requires several guises depending on

the number of speakers and the chosen text. Recent studies also investigate more complex speech varieties (e.g. ones that include code-switching). Hence, strategies to compare several guises may be preferred over a series of pairwise comparisons.

4. *Participant and/or speaker characteristics*: Of secondary interest in most MGT studies is to assess whether participant and/or speaker demographic and linguistic characteristics are associated with language attitudes. Hence, it is desirable to account for these aspects in the statistical analysis.

There have been several research efforts to incorporate these aspects into statistical analyses of data from MGT studies. While ANOVA-based procedures such as repeated measures ANOVA have been commonly used in the literature (e.g. Giles et al. 1995; Pieras-Guasp 2002; Buchstaller 2006; Kircher 2014b), other approaches have also been taken. To account for the dependence among multiple traits and to reduce their dimension, factor analysis and principal component analysis have been employed, for example, in Kerkhoff et al. (1988), Woolard and Gahng (1990), and Gooskens et al. (2016). The resulting factor scores, which are continuous by construction, are then compared for different guises using paired t-test or ANOVA-based approaches. More recently, mixed-effects models have been employed to account for multiple ratings from the same participants and to incorporate participant and speaker characteristics in a more comprehensive regression model framework. While Loureiro-Rodríguez et al. (2013) and Rangel et al. (2015) used linear mixed-effects models under the normality assumption for the ratings in their MGT studies, Guzzardo Tamargo et al. (2019) advocated the use of the cumulative link mixed-effects model to analyse the data from their MGT of code-switching in Puerto Rico (see below).

In the following, this chapter briefly discusses the advantages and drawbacks of different statistical approaches employed in MGT studies.

12.5.1   Descriptive Summaries

Due to various complexities in the data obtained by means of MGT studies, summarising the ratings for different guises using descriptive statistics (e.g. mean ratings) has been preferred for its simplicity and to ease interpretations. Such summaries are useful to understand the data. However, they are of limited inferential value to reach sound statistical conclusions. Observed differences in mean or median ratings of different guises can be due to chance and should be interpreted with caution.

12.5.2   Paired t-Test

The differences in participant ratings for matched guises can be naturally assessed using the paired t-test for each trait. This approach is

particularly appealing when there are two speech varieties or when the number of guises is not large. Otherwise, considering all pairwise comparisons would be cumbersome and would further involve accounting for the issue of multiple comparisons in statistical inference. Significance results from the paired t-test are often straightforward to interpret and allow identifying guises that are favoured in one direction over others for each trait (e.g. a significant positive mean difference in the ratings on intelligence of matched guises A and B would imply that on average, a speaker is perceived as more intelligent when using guise A than guise B). Since the paired t-test requires the differences in ratings to be continuous and normally distributed, it may not constitute a valid approach in the case of Likert scale ratings. Furthermore, accounting for demographic and linguistic characteristics of participants and/or speakers is not trivial under this approach.

12.5.3   ANOVA-Based Methods

ANOVA-based methods extend the paired t-test to settings where many guises are compared. While it has been customary to use univariate ANOVAs, a repeated measures ANOVA model is often more appropriate to account for dependencies among ratings from the same participant. Interpretations of results from repeated measures ANOVA often require post hoc assessments of pairwise differences of matched guises. Similar to the paired t-test, a major drawback of employing ANOVA-based methods in MGT studies is the violation of underlying assumptions, that is, it may not be appropriate to treat Likert scale ratings as continuous and normally distributed.

12.5.4   Factor Analysis and Principal Components Analysis (PCA)-Based Methods

One way to alleviate potential violations of assumptions for the traditional ANOVA-based methods is to employ factor analysis or PCA and obtain constructs (e.g. factor scores or principal components) that can be treated as continuous. Factor analysis and PCA are multivariate statistical techniques (for details see e.g. Johnson and Wichern 2008) often used to reduce a large number of traits into fewer factors that are meaningful and interpretable. These methods also account for the dependence among the ratings on multiple traits. As ratings are provided on a Likert scale, using the polychoric correlation matrix of ratings on multiple traits is advised over Pearson's correlation matrix. These approaches are often employed on each guise separately, and hence do not account for multiple ratings by the same participant. In addition, factor scores are obtained upon subjective factor rotations, which can be difficult to justify. Accounting for demographic and linguistic characteristics of participants and/or speakers is also not trivial unless one considers more complex latent variable regression models. While these approaches allow for the comparison of guises on

fewer factors than original traits, they may not lead to as clear and comprehensible interpretations as can be obtained by comparing guises on original traits for the purpose of the MGT experiment.

12.5.5   Linear Mixed-Effects Model Framework

A mixed-effects model is a statistical model containing both fixed and random effects. In the context of MGT studies, these models offer a flexible framework as they allow for the incorporation of demographic and linguistic characteristics of participants and/or speakers using fixed effects while accounting for potential dependence among the multiple ratings from each participant using random effects. The linear mixed-effects model takes a linear regression form where covariate effects are additive, hence are easy to interpret, that is, the same way they are interpreted in traditional linear regression. However, as in the ANOVA-based approaches, the linear model framework is suitable mainly for continuous and normally distributed data, which is not satisfied by Likert scale ratings in MGT studies. These models can be fit using standard software, such as the lme4 package (Bates et al. 2015) in the R statistical programming software (R Core Team 2019). More details on these models can be found in Gałecki and Burzykowski (2013).

12.5.6   Cumulative Link Mixed-Effects Model Framework

Cumulative link mixed-effects models (Agresti 2010; Christensen and Brockhoff 2013) are mixed-effects models tailored for ordinal (i.e. ordered categorical) data. Hence, these models provide a more suitable approach to analysing Likert scale ratings in MGT studies than linear mixed-effects models. The fitting of the cumulative link mixed-effects models is more involved than that of linear mixed-effects models, but can be achieved using the ordinal package (Christensen 2015) in the R statistical programming software. Due to their nonlinear nature, covariate effects under the cumulative link mixed-effects models do not have straightforward interpretations, which make them less appealing compared to linear mixed-effects models. Nevertheless, they provide a sound statistical methodology to address the needs of MGT studies, and are expected to be more widely used to study language attitudes in the literature.

12.6   Case Study: Language Attitudes in Puerto Rico

Puerto Rico had been a Spanish colony for four centuries when it became a territory of the United States in 1898. Since then, the United States and the English language have had a significant influence and presence on the island. For instance, while Puerto Rico retains control over internal affairs such as education, culture, and language, the United States holds authority over defence, currency, and foreign trade. The political status of Puerto Rico has been

intimately linked to the sociolinguistic situation of the island. Throughout the decades, changes in government have brought about changes in the official status of Spanish and English, and Puerto Ricans, who hold United States citizenship, have maintained tradition of back-and-forth migration between the island and the mainland, which has reinforced their bilingualism and, in turn, the presence of English in Puerto Rico. English co-exists with Spanish in public and private spheres on the island; however, Puerto Ricans' English use and proficiency vary greatly across generations and socio-economic status.

Early work reveals negative attitudes towards English and bilingualism (and specifically, towards code-switching) among Puerto Ricans, who perceived English as an imposition and considered it to be deteriorating Spanish (Tió 1948; Cardona 1980; Rodríguez Bou 1984). These negative attitudes persisted until the 1990s, with studies showing that English was seen as an attack on Puerto Rican heritage (Schweers and Vélez 1999), and describing students' struggle to learn the language as a covert resistance towards English (Clachar 1997; Pousada 1999). More recent work focused on language identity and linguistic ideologies suggests that Puerto Rican bilinguals' identity is fluid and dynamic, and that they regard code-switching as an essential part of their linguistic repertoire (Domínguez-Rosado 2015; Pérez Casas 2016).

Our study (Guzzardo Tamargo et al. 2019) is the first one to date to examine Puerto Rican bilinguals' attitudes towards monolingual and code-switched speech varieties using an indirect method of data collection. It is also the first study to use the MGT and to look at different types of code-switching in the Puerto Rican context. Specifically, our research aims to answer the following questions:

1.   Do Puerto Rican youth perceive monolingual (Spanish and English) and code-switched (including lexical insertions, inter-sentential code-switching, and intra-sentential code-switching) speech varieties differently in terms of personality, socio-economic, and ethnicity/ identity traits?

2.   Do speaker's sex and/or participants' background (age, sex, place of upbringing, and self-reported frequency of code-switching) have an impact on participants' language attitudes?

The text used to prepare the guises originated from an email sent to a listserv by a bilingual Puerto Rican. We modified the email to create five versions (i.e. Spanish, English, Spanish with English lexical insertions, inter-sentential code-switching, and intra-sentential code-switching) and pre-tested them amongst ten bilingual Puerto Ricans for authenticity. The texts were later edited based on their feedback. In order to elicit meaningful traits to be used in the experiment, pre-test participants were also asked to describe the type of person who they thought would use each of the five speech varieties; those traits more frequently repeated during the pre-test were then included in the MGT experiment. The texts were recorded by four additional bilingual Puerto Ricans (2M, 2F, mean age = 24.8); each guise lasted around 25 seconds.

Data collection took place in a computer lab at the University of Puerto Rico, where 110 students (55M, 55F) between the ages of 18 and 30 were recruited via flyers. Participants are all Spanish-English bilingual Puerto Ricans, and reported using both languages in their daily lives. They first completed a socio-demographic and linguistic questionnaire, and then they were asked to listen to the recordings of twenty people and rate them based on their voice alone. They were given a list of fifteen traits related to personality, socio-economic status, and ethnicity/identity, and a four-point Likert scale (thus avoiding the ambiguity of a mid-point) with the following anchors: strongly disagree, disagree, agree, and strongly agree. Order effects were avoided by counterbalancing the order in which guises were presented to participants, and by ensuring that two recordings of the same linguistic variety were not presented in a row.

Each trait was analysed separately using the cumulative mixed-effects models with random effects for participants and fixed effects for the speech varieties, sex of speaker, sex of participant, origin of participant, and self-reported code-switching frequency of participant. The estimated model coefficients were used to assess the significance of fixed effects and to obtain relative positions of the effects of the speech varieties with respect to Spanish for each trait.

Overall, speech variety and sex of speaker had a significant impact on participants' perceptions of speakers' attributes. By contrast, participants' background characteristics were usually not found to be significant. Regarding the personality attributes, the use of English and code-switching increased the odds of being identified as conceited and geek, and decreased the odds of being considered kind and cultured. These findings confirmed recurrent negative attitudes towards bilingualism and code-switching in earlier work in Puerto Rico. As for the socio-economic attributes, participants were significantly more inclined to associate speakers with high socio-economic class, power, and prestige when they used English, and slightly less so when they used code-switching. These findings reflect the expansion of code-switching to lower socio-economic and rural areas in Puerto Rican society. Finally, in terms of the ethnicity and identity attributes, participants showed considerably more positive attitudes towards code-switching than English, and they distinguished different code-switching types more clearly. While English was disassociated with being true Puerto Rican, none of the three code-switching types were considered as a departure from this identity. Code-switching was also more strongly associated with bilingualism than English and Spanish, with inter-sentential code-switching and intra-sentential code-switching more so than lexical insertions.

Suggested further readings

Drager (2018); Garrett (2010); Garrett et al. (2003); Giles and Billings (2008); Kircher (2016c)

13 The Verbal-Guise Technique

Marko Dragojevic and Sean Goatley-Soan

13.1   Introduction

The dominant experimental manner of eliciting language attitudes is by means of the *speaker evaluation paradigm*, which involves exposing respondents to a number of audio-recorded voices, or *guises* – representing different language varieties (e.g. accents, dialects, languages) – and having them rate each using various evaluative scales (Garrett 2010). Typically, the content of the recordings is a neutral passage of text and is held constant across the different guises. The guises can be produced using two techniques: the matched-guise technique (MGT; Lambert et al. 1960) and the verbal-guise technique (VGT; e.g. Markel et al. 1967; Tucker and Lambert 1969).[1] With the MGT, guises representing different language varieties are all produced by the *same* multilingual or multidialectal speaker, who is proficient in or can (authentically) mimic the varieties in question (see Chapter 12). With the VGT, guises representing the different language varieties are produced by different speakers, each speaking in their habitual language variety. The present chapter provides a comprehensive overview of this latter technique.

13.1.1   Key Features of the VGT

As a variant of the speaker evaluation paradigm, the VGT has many of the same characteristics as the MGT (see Garrett 2010; see also Chapter 12). Respondents are asked to listen to a series of audio-recorded voices, or *guises*, representing different language varieties. The VGT is amenable to both within-subjects experimental designs – where all participants are exposed to all varieties of interest, typically in random order (e.g. Bayard et al. 2001) – and between-subjects experimental designs – where each participant is randomly exposed to only a single variety of interest (e.g. Goatley-Soan and Baldwin 2018). The content of the recordings is usually a standardised passage of text and is held constant across the different guises (e.g. Tucker and Lambert 1969). In some instances, more spontaneous speech may be used, but it is typically restricted in

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1 Some researchers employ both techniques in the same study (e.g. El-Dash and Tucker 1975; Cavallaro et al. 2018).

topic in order to elicit comparable content across the different guises (e.g. Huygens and Vaughan 1983; McKenzie 2008a; Cavallaro et al. 2018).

After listening to a given recording, respondents are asked to answer several questions about the speaker they heard. These typically consist of semantic differential (e.g. Gallois and Callan 1981; Berk-Seligson 1984; Zahn and Hopper 1985) and/or Likert-type scales (e.g. Stewart et al. 1985; Cavallaro et al. 2018; Dragojevic and Goatley-Soan 2020), which require respondents to rate the speaker on various personality traits (e.g. competence, warmth).[2] In addition to assessing respondents' beliefs about the speaker, researchers can also assess respondents' affective (e.g. Cargile and Giles 1997) and/or behavioural responses towards the speaker (e.g. Bourhis and Giles 1976; see also Chapter 1). This process is repeated until all guises have been evaluated. Obtained responses are then compared to determine whether different guises elicited different evaluative reactions. To the extent that the only difference across rendered guises is the linguistic variable of interest (i.e. all extraneous factors have been held constant), any evaluative differences that emerge across guises can be attributed to the target linguistic variable.

The primary difference between the VGT and MGT is how the different guises are produced. The goal of both techniques is the same: to produce guises that differ from one another in one respect only – namely, a target linguistic variable.[3] The MGT achieves this goal by having the same speaker produce all guises, varying their speech only in terms of the target linguistic variable and keeping all other aspects of their speech constant (e.g. pitch, speech rate). This technique has the advantage of full experimental control because it ensures that the only difference across rendered guises is the target linguistic variable, with all other extraneous vocal and demographic factors – which naturally vary across speakers – held constant.

In contrast, the VGT relies on different speakers – each speaking in their habitual language variety – to produce the different guises. Different speakers naturally vary from one another in terms of a wide range of demographic characteristics (e.g. age, sex), as well as vocal characteristics (e.g. pitch, speech rate). Consequently, the use of different speakers to render the different guises inevitably introduces unwanted 'noise' across recordings in the form of extraneous variation beyond the linguistic variable of interest. To address this and attempt to achieve a level of experimental control comparable to the MGT, a number of strategies have been adopted, including matching speakers on relevant demographic factors (e.g. age, sex); matching speakers on extraneous vocal

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2 Open-ended questions may also be used, either in place of or in addition to evaluative scales (e.g. Scotton 1977; Carrie and McKenzie 2018; Cavallaro et al. 2018; see also Chapter 12).

3 The VGT can be used to investigate attitudes towards any aspect of linguistic variation, including different languages, dialects, accents, and even specific linguistic features, such as different pronunciations of (ING). Throughout, we use the term *variable* in a general, experimental sense to refer to any factor that can be instantiated in two or more ways (for a discussion of variables in experimental research, see Field and Hole 2003).

characteristics not of interest in the study (e.g. pitch); and using multiple speakers to represent each language variety. For instance, if the focus of a study is on regional accent variation, then speakers of different regional accents would be recruited to produce the different guises. These speakers would be matched as closely as possible on all extraneous factors (e.g. age, sex, pitch, speech rate). Moreover, multiple matched speakers of each variety would ideally be identified. Together, these strategies help ensure that the only (or at least primary) difference across rendered guises is the target linguistic variable.

13.1.2   History and Emergence of the VGT

The label *verbal-guise technique* is typically attributed to Cooper (1975),[4] and the method is frequently described as a response to (and sometimes a variant of) the MGT (see also Chapter 12). However, studies using VGT procedures actually predate the introduction of the MGT. For instance, as early as the 1930s, researchers (e.g. Pear 1931; Allport and Cantril 1934) were using VGT procedures – that is utilising different speakers to represent different language varieties – to elicit respondents' evaluative reactions towards linguistic variation. Despite these early beginnings, proliferation of VGT studies did not begin until after Lambert et al.'s (1960) introduction of the MGT.

As noted above, a key advantage of the MGT was that it provided full experimental control: The use of the same speaker to render the different guises ensured that all demographic and vocal characteristics other than the linguistic variable of interest were held constant across guises. Nonetheless, and despite this important advantage, it soon became clear that the MGT also had some notable disadvantages (see Chapter 12). First, it was often difficult, and sometimes impossible, to find a single speaker who could render all of the varieties of interest, especially when a large number of varieties were involved. Second, even if such a speaker was found, the authenticity of their different guises might be called into question (Preston 1996).

The VGT offered a relatively simple solution to both problems. First, because different speakers could be used to render the different guises, it was easier to find speakers who were able and willing to produce audio recordings of the varieties of interest. Second, because the VGT relied on speakers speaking in their habitual language variety, researchers (and reviewers) felt more assured that the rendered guises were authentic representations of the varieties in question. These two key advantages contributed to a rapid proliferation of VGT studies worldwide (e.g. Markel et al. 1967; Tucker and Lambert 1969; El-Dash and Tucker 1975; Ryan and Carranza 1975; Scotton 1977; Berk-Seligson 1984;

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4 Initially, the label was synonymous with the speaker evaluation paradigm and used to 'refer to the matched-guise and non-matched language guise methods alike' (Cooper 1975: 5) Over time, however, use of the label became more restricted to refer only to the non-matched variant of the speaker evaluation paradigm, in which guises representing different language varieties are produced by different speakers.

Paltridge and Giles 1984), which continues to this day (e.g. Cavallaro et al. 2018; Hendriks et al. 2018; McKenzie et al. 2019).

13.2   Strengths and Limitations

The VGT has a number of notable strengths as well as some important limitations. Some of these are shared with the MGT (as indicated below; see also Chapter 12) whereas others are unique to the VGT (for an overview, see e.g. Garrett 2010). Many of these strengths and limitations involve issues related to internal validity – that is whether obtained findings can unequivocally be attributed to the manipulated linguistic variable(s) – and external validity – that is whether obtained findings can be generalised to other situations, people, and stimuli (for an introduction to validity, see Field and Hole 2003).

13.2.1   Strengths

First, the VGT (like the MGT) tends to be less prone to social desirability bias than more direct methods (see Part 2 of this volume). *Social desirability bias* refers to respondents' tendency to answer questions in a way that they believe is socially acceptable and/or desirable, and will be viewed favourably by others. If respondents have negative attitudes towards a particular language variety and are asked directly to articulate those attitudes, they may not be willing to answer honestly so as not to appear prejudiced. The speaker evaluation paradigm tends to be less susceptible to this bias because it elicits respondents' attitudes in a more indirect fashion: Although respondents are aware that they are engaging in an attitude rating task, they are not necessarily aware of what they are rating (i.e. linguistic variation). Consequently, VGT (and MGT) studies may elicit more private attitudes to the varieties in question than more direct methods (Lambert 1967).[5] This may be one reason why direct and indirect methods sometimes yield contrasting results (e.g. Lambert et al. 1965; see also Chapter 21).

Second, the VGT typically yields more authentic guises than the MGT. The MGT often requires speakers to mimic different language varieties, which – unless the speakers are perfectly multilingual or multidialectal – can result in inauthentic and/or exaggerated versions of the varieties in question (for a discussion, see Gaies and Beebe 1991).[6] Indeed, mimicked guises frequently contain inaccuracies (see Preston 1996). By contrast, the VGT relies on speakers using

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5 For a discussion of the relationship between elicitation methods and listeners' conscious awareness of their attitudes, see Rosseel and Grondelaers (2019); Chapter 1; and Chapter 12.

6 The MGT does not always involve mimicking. In some cases, a speaker may be proficient in all varieties of interest.

their habitual language variety; consequently, the rendered speech is, by definition, an authentic representation of the varieties in question.

Third, VGT stimuli tend to be easier to procure than MGT stimuli. Finding a single speaker who can authentically produce all varieties of interest is often difficult, particularly when mimicking and/or a large number of varieties are involved. Given that the VGT relies on speakers using their habitual language variety, finding speakers who are able and willing to produce audio recordings of the varieties of interest tends to be much easier. Indeed, in some cases, relevant VGT stimuli may already be freely available online (e.g. from the *Speech Accent Archive*, Weinberger 2017 – see Section 13.3.2 for more details).

Fourth, and related, the VGT makes it easier to procure recordings of multiple speakers to represent each variety of interest, compared to the MGT. While a given person's speech may be authentic, it may not be representative (i.e. typical) of the wider speech community the speaker belongs to (or purports to belong to), regardless of whether the person's speech was rendered using VGT or MGT procedures. Consequently, results obtained using one speaker may not necessarily generalise to other speakers who use that variety (e.g. Ball 1983). Accordingly, the use of multiple speakers to represent each variety of interest is desirable because it can increase generalisability. Given that finding a single speaker – let alone multiple speakers – who can authentically produce all varieties of interest is difficult, the vast majority of MGT studies utilise only a single speaker in their designs (for exceptions, see e.g. Lambert et al. 1960; Ball 1983; Genesee and Holobow 1989; Kircher 2012). In contrast, because VGT stimuli tend to be much easier to procure, obtaining recordings of multiple speakers to represent each variety of interest is typically much easier. Indeed, most VGT studies use two or more speakers to represent each variety of interest (e.g. Markel et al. 1967; Tucker and Lambert 1969; Huygens and Vaughan 1983; Nesdale and Rooney 1996).

Fifth, the VGT tends to be more amenable than the MGT to the production of spontaneous speech. Although VGT studies typically utilise a standardised passage which is held constant across different guises, the use of more spontaneous speech may have some notable advantages (see below; for a more detailed discussion, see also Garrett 2010). However, spontaneous speech can be difficult to obtain using MGT procedures. Mimicking different varieties tends to be a relatively rehearsed and effortful activity, which most speakers cannot perform successfully whilst simultaneously producing spontaneous message content. In contrast, spontaneous speech is much more easily elicited from speakers using their habitual language variety (see e.g. Giles and Bourhis 1976; McKenzie 2008a).

Sixth, the VGT tends to be more amenable to the use of within-subjects designs than the MGT. One advantage of such designs is that they require fewer participants than between-subjects designs to achieve the same level of statistical power, making them more economical. For the MGT to be valid, respondents need to be successfully deceived that the guises they are listening to are different

speakers, rather than the same speaker. Researchers typically attempt to achieve this goal by telling participants at the outset of a study that they will be listening to different speakers and by including *filler voices* to ensure that guises produced by the same speaker are never heard in immediate succession (e.g. Ball 1983; see Chapter 12). While these techniques are typically successful, they do not guarantee that respondents will properly be deceived; indeed, the only guarantee is to use a between-subjects design (see Gaies and Beebe 1991). By contrast, the VGT is largely immune to this problem: Given that different recordings are produced by different speakers, the risk of listeners (falsely) concluding that they are repeatedly listening to the same speaker is minimal.

13.2.2   Limitations

Despite its many advantages, the VGT also has some notable limitations. First, the VGT (like the MGT) may increase the salience of non-content speech features, which may jeopardise the study's external validity (Lee 1971). VGT studies typically utilise within-subjects designs and a standardised passage, which is held constant across different guises. Repeated exposure to the same message may shift respondents' focus from the content of the message to non-content speech features (e.g. language variation), making the latter more salient than they normally would be outside the experimental setting (Garrett 2010). This, in turn, may accentuate any evaluative differences that emerge. To guard against this potential issue, some studies utilise more spontaneous speech – which ensures at least some content variation across guises (e.g. McKenzie 2008a) – or employ between-subject designs (e.g. Goatley-Soan and Baldwin 2018). Interestingly, studies that adopt these extra precautions generally yield the same pattern of results as studies that do not.

Second, the VGT (like the MGT) is susceptible to message topic and content effects, which also pose a threat to external validity.[7] Specifically, the same language variety may be evaluated differently depending on the topic and content of the speaker's message (e.g. Ryan and Carranza 1975). Consequently, results obtained using any given message may not necessarily generalise to other messages. For this reason, VGT studies (like MGT studies) typically utilise a 'factually neutral' text, which is not clearly linked to any specific life domain (e.g. a short, fictional story); however, the very idea of a factually neutral text may be problematic (see Giles et al. 1990). With this in mind, and as a way to increase the generalisability of their findings, several VGT studies have used multiple texts simultaneously in their designs (e.g. Callan et al. 1983).

Third, and related, the VGT (like the MGT) is susceptible to broader context effects, which can also jeopardise the study's external validity.[8] Specifically, the

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7 If they are not held constant across different guises, message topic and content can also pose a threat to internal validity.

8 If it is not held constant across different guises, context can also pose a threat to internal validity.

same language variety may be evaluated differently depending on the context or situation in which evaluations are elicited (for a discussion, see Giles and Ryan 1982). Consequently, results obtained in one setting (e.g. a school) may not necessarily generalise to other settings (e.g. a youth club; see Creber and Giles 1983).

Fourth, and perhaps most important, the VGT provides less experimental control than the MGT. As noted throughout, the VGT relies on different speakers to produce different guises. Different speakers naturally vary on a wide range of demographic and vocal characteristics, which inevitably introduces extraneous variation across recordings, beyond the linguistic variable of interest. This presents a serious threat to internal validity: If guises differ from one another on multiple dimensions, then any evaluative differences that emerge across guises cannot unequivocally be attributed to the target linguistic variable. To minimise this extraneous variation and attempt to achieve a level of experimental control comparable to the MGT, VGT studies typically try to match speakers as closely as possible on all relevant demographic factors and extraneous vocal characteristics. However, even with these steps, a 'perfect match' can never be established and some degree of idiosyncratic variation across guises will inevitably remain. Consequently, as an added precaution, VGT studies typically employ multiple matched speakers to represent each variety of interest (e.g. Markel et al. 1967; Tucker and Lambert 1969; Callan et al. 1983; Cavallaro et al. 2018). The reasoning behind this approach is that any remaining idiosyncratic variation among speakers will randomly be distributed across the different varieties of interest (for a discussion, see also Garrett 2010).

13.3   Research Planning and Design

The successful execution of a VGT study depends on a number of careful considerations and decisions. This section discusses some of the key practical issues involved in planning and designing a VGT study. Before going into specifics, it is important to bear in mind that clear research goals should be established for all studies. This involves identifying one or more target linguistic variables and explicating clear hypotheses and/or research questions, which should be informed by theory and past research (see Chapter 1). Moreover, it should be noted that as the VGT involves human participants, studies making use of it must be approved by and carried out in accordance with the recommendations of a governing ethics committee (see Field and Hole 2003).

13.3.1   Selection of Message Content

Careful attention should be given both to the content of the message(s) speakers are asked to record and to how that content is elicited (see also Chapter 12). One approach is to use a pre-prepared text, which all speakers are

asked to read aloud. A key advantage of this approach is that it ensures that message content is held constant across different guises. However, this increased internal validity may come at the expense of external validity. In within-subjects designs, repeated exposure to the same message may make non-content speech features (e.g. accent) more salient to listeners than they normally would be outside the experimental setting (Lee 1971). Similarly, reading aloud techniques tend to produce a relatively formal style of speech compared to the more spontaneous speech listeners are likely to encounter in most real-world situations (Labov 1972a). Despite these potential drawbacks, most VGT studies adopt this method, prioritising internal validity over external validity (e.g. Tucker and Lambert 1969; Brown and Cichocki 1995; Bayard et al. 2001; Cargile et al. 2006).

An alternative approach is to use more spontaneous speech. Although this approach can increase the study's external validity, it comes at the expense of internal validity: If message content differs across guises, then any differences that emerge in respondents' ratings could potentially be attributed to variation in message content, rather than the target linguistic variable. To address this issue, researchers often take steps to prevent substantial variation in message content across guises, typically by restricting the nature and topic of the speech event. For instance, McKenzie (2008a) recorded speakers giving directions to a stranger using the same fictitious map, which ensured the elicitation of comparable content across guises. Although not as common as the use of a pre-prepared text, many VGT studies adopt this approach (e.g. Giles and Bourhis 1976; Huygens and Vaughan 1983; Cavallaro et al. 2018;).

With both approaches, careful attention should be paid to message content and topic. As noted previously, message content – especially when it is clearly tied to a specific life domain (e.g. school, work) – can influence respondents' evaluations of different language varieties (e.g. Ryan and Carranza 1975). In other words, results obtained using one message may not necessarily generalise to other messages. For this reason, researchers typically try to ensure that message content is as 'factually neutral' as possible (see Gaies and Beebe 1991). Another way to address this potential issue is to use multiple messages in a single study and examine the extent to which obtained results generalise across different messages (e.g. Ryan and Carranza 1975; Callan et al. 1983).

13.3.2   Selection of Speakers

Arguably the most important task involved in the design of any VGT study is the careful selection of speakers. In order to ensure a high degree of internal validity, speakers must be matched as closely as possible on all extraneous factors. This matching process is labour intensive and usually involves several steps.

Typically, a relatively large pool of potential speakers of the target language varieties is initially identified. Potential speakers are matched as closely as

possible on all relevant demographic factors (e.g. age, sex), and, based on this, a subset of speakers is selected (e.g. male speakers in their 20s).[9] The selected speakers are then asked to produce audio recordings of a message in their habitual language variety, either by reading aloud from a pre-prepared text or using some other elicitation method (if more spontaneous speech is desired). Care is taken to ensure that all recordings are produced in the same or a similar environment, in order to avoid the introduction of other extraneous variation across recordings that could bias respondents' ratings, such as background noise (Dragojevic and Giles 2016). Each speaker is usually asked to produce multiple renditions of the message to aid in the subsequent matching process (e.g. Markel et al. 1967).

Obtained recordings are then matched as closely as possible on all extraneous vocal characteristics (e.g. speech rate, pitch, intonation), and, based on this, a subset of audio-recordings is identified to serve as stimuli in the study. In some instances, computer software – such as Audacity (Audacity Team 2020) and Praat (Boersma and Weenink 2020), both of which are freely available for download – may be used to remove any idiosyncratic variation in delivery (e.g. long pauses) and to equalise the sound intensity level across recordings (e.g. Hendriks et al. 2018; Lehnert et al. 2018). Ultimately, this process should yield audio recordings of at least one speaker of each language variety of interest, with selected speakers matched as closely as possible on all extraneous factors to ensure that the only (or at least) primary difference across rendered guises is the target linguistic variable. As noted above, a 'perfect match' can never be established when different speakers are used to render the different guises. For this reason, and to increase the overall representativeness of the stimuli, audio recordings of multiple matched speakers of each variety should be obtained whenever possible. This increases the chances that any remaining idiosyncratic variation among speakers will be randomly distributed across the different varieties of interest (for a discussion, see also Garrett 2010).

Matching speakers can be aided through the use of pilot studies (e.g. Callan et al. 1983; Nesdale and Rooney 1996; Cavallaro et al. 2018), detailed phonetic analyses and linguistic experts (e.g. Cargile et al. 2006), and computer software (e.g. Hendriks et al. 2018; Lehnert et al. 2018). For instance, a pilot study could be conducted in which participants are asked to rate potential speakers on extraneous vocal characteristics (e.g. loudness, speech rate); only speakers who are judged similarly on extraneous characteristics should be retained in the pool of potential speakers (e.g. Gallois and Callan 1981). In addition, several online repositories exist, which can aid in the procurement of vocal stimuli. For instance, the *Speech Accent Archive* (Weinberger 2017) is a large online

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9 Many VGT studies include speakers of a single sex only (e.g. Brown and Cichocki 1995; Cargile et al. 2006). Given that speaker sex can influence language attitudes (e.g. Callan et al. 1983; Bayard et al. 2001; see also Chapter 12), researchers wishing to generalise across speaker sex should include both male and female speakers in their study.

repository hosted by George Mason University, which contains audio recordings of hundreds of speakers of various demographic and linguistic backgrounds reading the same, fictional English-language text in their habitual language variety. The repository contains basic demographic information (age, sex, birthplace, etc.) for most speakers and, in some cases, a detailed phonetic analysis of their recordings, both of which can aid in the matching of speakers on extraneous characteristics. All recordings are freely available for download and use in research.

13.3.3 Selection of Measures

Language attitudes can be assessed in various ways. Typically, VGT (and MGT) studies assess language attitudes through the use of various evaluative scales, which require respondents to rate speakers on several traits (e.g. competence, warmth). As noted previously, semantic differential (e.g. Gallois and Callan 1981; Berk-Seligson 1984; Zahn and Hopper 1985) and/or Likert-type scales (e.g. Stewart et al. 1985; Cavallaro et al. 2018; Dragojevic and Goatley-Soan 2020) are both common in the literature. Past research using such scales has consistently shown that language attitudes – like person perception more generally (Fiske et al. 2007) – are organised along two primary evaluative dimensions: *status*, including traits such as intelligence, competence, and success, and *solidarity*, including traits such as warmth, friendliness, and sociability (Ryan 1983; Woolard 1985; see also Chapter 1). Nearly all VGT studies assess respondents' perceptions of speakers along these two dimensions, although the specific traits used to measure each dimension may vary slightly from study to study. This is not to say, however, that these dimensions are exhaustive; indeed, a third dimension – dynamism – frequently emerges in the literature (e.g. Zahn and Hopper 1985; Kristiansen 2009; see also Chapter 1).[10] In addition to measuring ratings of speakers' status and solidarity (and sometimes dynamism), researchers may also wish to assess other constructs, depending on the focus of their study. Examples of other constructs assessed in the literature include: accent prejudice (Ura et al. 2015), affect (Cargile and Giles 1997), attitudes towards languages (Schoel et al. 2013), behavioural cooperativeness (Bourhis and Giles 1976), employability (Goatley-Soan and Baldwin 2018), ethnolinguistic vitality (Bourhis et al. 1981; Abrams et al. 2009), processing fluency (e.g. Dragojevic and Giles 2016; Dragojevic et al. 2017), and social distance (e.g. Berk-Seligson 1984; Dragojevic and Giles 2014), among many others.[11]

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10 In addition to the traits typically assessed in the literature, researchers may also wish to include in their scales other traits they deem relevant to the specific context of their study (see also Chapter 12).

11 Open-ended questions are also frequently used, either in place of or in addition to evaluative scales (e.g. Carrie and McKenzie 2018; Cavallaro et al. 2018).

13.3.4   Experimental Design

      The VGT is generally amenable to the use of both within-subjects experimental designs – where all participants are exposed to all varieties of interest (e.g. Bayard et al. 2001) – and between-subjects experimental designs – where each participant is randomly exposed to only a single variety of interest (e.g. Goatley-Soan and Baldwin 2018).[12] Although within-subjects designs tend to be more economical than between-subjects designs, they are susceptible to *order effects*, which occur when respondents' ratings of different varieties are influenced by the order in which those varieties are presented (see Field and Hole 2003). To address this, studies utilising within-subjects designs should counter-balance or randomise the presentation order of different recordings. In studies where multiple speakers are used to represent each variety of interest and participant fatigue is of concern, it may also be appropriate to assign each participant to listen to only a random subset of speakers of each variety (e.g. Dragojevic and Goatley-Soan 2020).

    VGT studies can be conducted in person or online. In-person, lab-based experiments help ensure that all participants complete the study under the same conditions. Although this increases internal validity, it may come at the expense of *ecological validity* (i.e. the extent to which a study approximates real-world situations). For this reason, some researchers choose to conduct VGT studies in more naturalistic settings (e.g. a theatre: Kristiansen 1997; see also Chapter 14). Compared to in-person studies, online studies typically require fewer resources, are easier and faster to run, and may facilitate the recruitment of more diverse (or specific) samples (Gosling and Mason 2015). However, because researchers typically have less control over the conditions under which participants complete online studies, online research can pose challenges to internal validity. To address this, various steps can be taken, such as including a soundcheck to ensure participants' audio is working properly; measuring the amount of time participants spend listening to recordings to ensure they listen to all recordings in their entirety; not allowing participants to pause or repeat recordings; and restricting the devices (e.g. computer, smartphone) participants can use to complete the study (see also Gosling and Mason 2015).

13.4   Data Analysis and Interpretation

      Most VGT studies yield quantitative data.[13] As noted above, VGT studies almost ubiquitously include various evaluative scales which require

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12 Some studies use a mixed design, incorporating one or more within-subjects factors (e.g. accent) and one or more between-subjects factors (e.g. message topic; e.g. Callan et al. 1983).

13 If open-ended questions are used, researchers may also have qualitative data. The analysis of qualitative data is a more variable process and depends on researchers' specific goals (e.g. Scotton 1977; Cavallaro et al. 2018).

respondents to rate speakers on a number of personality traits. Given that these scales typically include a relatively large number of traits, researchers frequently rely on various techniques to reduce the large number of items to a smaller, more manageable set of composite variables (or factors) to use in subsequent analyses. Data reduction methods, such as principal components analysis (PCA), are commonly used to achieve this goal (e.g. McKenzie 2008a; Cavallaro et al. 2018); other factor analytic procedures have also been used (e.g. Callan et al. 1983; Zahn and Hopper 1985; for a discussion of different methods, see Brown 2006 and Chapter 12). As noted above, these procedures have consistently shown that language attitudes are primarily organised along two fundamental evaluative dimensions (or factors): status and solidarity.

Once underlying factors have been identified, scale reliability can be evaluated using various measures of internal consistency – such as Cronbach's (1951) alpha – which indicate how closely related items within each factor are (see also Chapter 9). Assuming that these values are sufficiently high (e.g. $> .70$), respondents' scores on individual items of each factor are typically combined in some manner – usually by averaging across items – to obtain a composite score for each factor. This process is repeated for each rated speaker.

When multiple speakers are used to represent each language variety of interest, researchers typically further collapse (e.g. average) respondents' ratings on each factor across all speakers of a given variety (e.g. Markel et al. 1967; Ryan and Carranza 1975; Callan et al. 1983; Huygens and Vaughan 1983; Stewart et al. 1985; Nesdale and Rooney 1990). This is done because researchers are often (though certainly not always) interested in how different language varieties are evaluated overall, rather than how individual speakers of those varieties are evaluated. Indeed, different speakers of the same variety – even when matched as closely as possible – may elicit different ratings on a given factor, simply due to idiosyncratic variation across speakers that cannot be perfectly controlled for. An overall score subsumes any evaluative differences that may emerge due to this idiosyncratic variation (see also Garrett 2010).

Composite scores on each factor can then be compared across varieties to examine whether respondents rated varieties differently on that factor.[14] If only two varieties are being compared, a t-test is typically used to determine if the mean ratings each variety received on a given factor are significantly different from one another.[15] If three or more varieties are involved, an analysis of variance (ANOVA) is typically conducted first, which provides a statistical test of whether mean ratings on a given factor differed across varieties. A statistically significant effect is generally followed by pairwise comparisons (e.g. t-tests) to

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14 In addition to comparing mean ratings of different language varieties, researchers may also have other goals, requiring different analytic procedures.

15 Parametric tests (e.g. t-tests, ANOVAs) should only be used for data that meet certain assumptions. If those assumptions are violated, non-parametric tests should be used instead (see Field 2009).

determine which varieties, specifically, elicited different ratings. As the number of varieties being compared increases, so does the number of pairwise comparisons that need to be conducted. Consequently, probability values are usually adjusted using one of several methods (e.g. Bonferroni correction) to reduce the Type I error rate. Any significant differences that emerge using the abovementioned analyses indicate that varieties were rated differently on that factor. To the extent that speakers have been carefully matched on all extraneous factors and that the only (or at least primary) difference across different guises is the linguistic variable of interest, any significant differences that emerge can confidently be attributed to the target linguistic variable.

13.5   Further Important Considerations

In their seminal study using the MGT, Lambert and colleagues (1960) theorised that language attitudes are a function of social categorisation processes: Listeners use speakers' language to infer which social groups speakers belong to and, in turn, attribute to speakers stereotypic traits associated with those groups (see also Giles and Marlow 2011; Ryan 1983; see also Chapter 1). Extant research provides strong evidence to support this claim (e.g. McKenzie 2008b; Yook and Lindemann 2013; Dragojevic et al. 2018).

Surprisingly, however, past VGT (and MGT) studies have rarely asked respondents to identify which social group(s) they think speakers belong to and have instead assumed that respondents are categorising speakers correctly (but see e.g. Bayard et al. 2001; Lindemann 2003). However, a growing body of research shows that listeners' inferences about speakers' social group memberships are often inaccurate (e.g. Bayard et al. 2001; Dragojevic and Goatley-Soan 2020). For instance, Lindemann (2003) found that only 8 per cent of American listeners correctly identified Korean-accented speakers as Korean; the vast majority misidentified them as belonging to other foreign groups (e.g. Chinese, Indian). To complicate matters further, most language varieties (e.g. a Parisian accent) index multiple social identities, at different levels of abstraction (e.g. Parisian, French, European). Accordingly, even when listeners correctly identify a speaker's language variety, any one of several social identities may become salient, depending on various factors (Abrams and Hogg 1987; Dragojevic and Giles 2014; for a discussion, see Dragojevic 2018). This variation is consequential because different social groups tend to be associated with different stereotypes (Bodenhausen et al. 2012). Consequently, the same speaker may elicit different evaluations, depending on how they are categorised (e.g. McKenzie 2008b; Yook and Lindemann 2013; Dragojevic et al. 2018).

This can lead to considerable interpretive difficulties and is often cited as an important limitation of the speaker evaluation paradigm (Garrett 2010). To address this, VGT (and MGT) should strive to explicitly assess social categorisation, whenever possible (for similar calls, see Preston 1993b). This can be done

using open-ended questions, which ask participants to indicate which social group(s) they think each speaker belongs to (e.g. Lindemann 2003; McKenzie 2008b) or closed-ended questions, which ask participants to select for each speaker relevant social group membership(s) from a predetermined list (e.g. Bayard et al. 2001).

13.6 Case Study: Attitudes towards Foreign Accents in America

To illustrate many of the key points discussed in this chapter, we now turn to a brief discussion of a VGT study we recently conducted (Dragojevic and Goatley-Soan 2020). The study was inspired by the findings that foreign-accented speech is typically evaluated less favourably than native, standard-accented speech (Fuertes et al. 2012; Giles and Watson 2013), but that not all foreign accents elicit equally negative evaluations (Lindemann 2005; Garrett 2010; Lippi-Green 2012). Our goal was twofold. First, we wanted to document Americans' attitudes towards a wide range of foreign accents. Second, we wanted to examine if and why different foreign accents elicit different evaluations.

Our study focused on Standard American English (SAE) and nine, non-Anglo foreign accents: Arabic, Farsi, French, German, Hindi, Hispanic, Mandarin, Russian, and Vietnamese. These particular foreign varieties were selected because of their geographic diversity and because they are those that Americans are likely to encounter in their daily lives, based on recent immigration statistics. Due to the large number of varieties involved, the MGT was not feasible: It was impossible to find a single speaker – let alone several speakers – who could authentically produce all of the varieties involved. Consequently, we relied on the VGT.

We obtained all vocal stimuli from the aforementioned *Speech Accent Archive* (Weinberger 2017), which was particularly suited to our needs because it contains audio recordings of dozens of speakers of each variety we were interested in, reading the same passage of text. Given that all recordings in the archive are produced by speakers using their habitual language variety, we were confident that the recordings were authentic renditions of the varieties in question.

For each of the ten varieties, we initially compiled a list of *all* speakers contained in the archive, along with their demographic information. We wanted to include both male and female speakers so that we could generalise across speaker sex. Consequently, from this initial list, we identified as potential speakers all male and female speakers who were within a reasonably narrow age range (i.e. 20–35 years old). We then carefully listened to all recordings multiple times and selected a subset of these, matched as closely as possible on all extraneous vocal characteristics (e.g. pitch, speech rate). Given that we

wanted to generalise across individual speakers within each sex, we decided to include two speakers of each sex.

Our final selection included two male and two female speakers of each variety, who were matched as closely as possible on all extraneous factors. This resulted in a total of forty recordings. Audio-editing software (i.e. Audacity, Praat) was used to remove any noticeable disfluencies in delivery (e.g. long pauses, repeated words) – all of which were rare – and to normalise all recordings at 70 dB, as variation in these factors could potentially bias results. Across the ten accent clusters, the average age of speakers (range: 22.3–26.2) and the average length of recordings (range: 22–30.8 seconds) were both comparable.

We recruited our sample through Mechanical Turk (MTurk), a crowd-sourcing labour marketplace owned and operated by Amazon.com, where individuals sign up to complete various tasks for modest payment. Participants were paid $5 for participating in the study, which took approximately 45 minutes to complete. Recruitment was limited to those individuals who resided in the United States. The final sample consisted of 254 American nationals, all of whom were native English speakers (48.4% women, $M_{age} = 36.6$).

The study employed a within-subjects design and was conducted entirely online. The study was introduced to participants as being concerned with how people evaluate personalities based on limited information. Participants first completed a soundcheck to verify that their computer audio was working correctly. Given the large number of recordings involved (i.e. 40), we were concerned about participant fatigue. As a result, each participant was randomly assigned to listen to twenty of the forty recordings, such that each participant heard one male and one female speaker of each of the ten varieties, in random order. Each recording began playing automatically and participants could not continue to the next page until the recording ended, nor could they replay recordings.

After listening to each recording, participants rated the speaker they had heard on four status traits (i.e. competent, intelligent, educated, smart) and four solidarity traits (i.e. warm, friendly, nice, pleasant), using seven-point scales (1 = not at all; 7 = very). For each speaker, the four status items were averaged to form the status scale, and the four solidarity items were averaged to form the solidarity scale. Additionally, participants indicated their level of processing fluency for each speaker (i.e. how easy the speaker was to understand) and, via an open-ended question, indicated where they thought each speaker was from. Participants' responses to the open-ended social categorisation question were classified into one of nine mutually exclusive categories (e.g. America, Western Europe, South Asia).

Speaker sex was not of theoretical interest and was included only for purposes of generalisability. Consequently, we collapsed data across speaker sex by averaging the ratings listeners assigned to the male and female speaker of each variety. This yielded, for each variety, a single status, solidarity, and processing fluency score. Data were analysed using a series of repeated-measures ANOVAs.

Significant omnibus tests were followed up by post hoc pairwise comparisons with a Bonferroni correction.

Results revealed that all foreign-accented speakers were evaluated more negatively than SAE speakers, but that this evaluative downgrading was accentuated for some foreign accents (e.g. Arabic, Farsi) and attenuated for others (e.g. French, German). This variation in language attitudes was related to variation in social categorisation and listeners' processing fluency. Specifically, the higher the proportion of non-stigmatised foreign categorisations (i.e. Western Europe, Anglosphere) for a given foreign accent, the more positively speakers of that accent were evaluated. Related, the easier speakers of a given foreign accent were to understand, the more positively they were evaluated. Together, these findings underscore the important role that social categorisation and processing fluency play in the language attitudes process.

Suggested further readings

Campbell-Kibler (2013a); Garrett (2010); Garrett et al. (2003); Giles and Billings (2008); McKenzie (2010)

14 The Theatre-Audience Method

Tore Kristiansen

14.1 Introduction

14.1.1 Basic Description

In a study that employs the theatre-audience method, the audience in a theatre is addressed over the loudspeaker system and asked for some kind of reaction in terms of compliance or cooperation. In a movie theatre, for instance, the audience may be asked to fill out a questionnaire at the exit after having watched a film in order to help with the planning of the future film programme. The point is that the message is delivered in one language variety on the first night, in a second variety on the next night – and possibly in more varieties on subsequent nights, depending on the number of varieties that the researcher wishes to measure reaction to. The answers given in the questionnaires are not what the researcher is interested in (but the owner of the movie will be, so there is no deception involved). The researcher is interested in the quantity of completed questionnaires on each of the nights, in relation to the number of sold tickets. The audience reaction each night is measured as the ratio between filled-out questionnaires and sold tickets, and the difference in reactions across nights is taken as evidence for difference in language attitudes.

14.1.2 Brief History

The history of the method in terms of emergence and use can be covered in its entirety as the relevant studies to include are very few.

Driven by the wish to escape the artificiality of collecting attitudinal data from consciously aware listener–judges in laboratory-like settings (typically students in classrooms), the social psychologists Richard Bourhis and Howard Giles devised an 'ingenious' (Fasold 1984: 155) way of eliciting evaluative reactions from people in an everyday context (the theatre audience) where no one realises that they are participating in language attitude research (Bourhis and Giles 1976). The location of their study was the city of Cardiff in Wales. Two kinds of audiences, Anglo-Welsh and bilingual Welsh-English, were addressed over the loudspeaker system in the same theatre – in different language varieties on consecutive nights. The Anglo-Welsh audiences attended a film in English and were addressed in one of three varieties of English: standard Received

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Pronunciation (RP, two nights), mildly Welsh-accented English (one night), and broadly Welsh-accented English (two nights). The bilingual Welsh audiences attended a play in Welsh and were likewise addressed in one of the three English varieties, distributed across the first three nights, and furthermore in standard Welsh on the fourth night. The Anglo-Welsh audience showed a significantly higher return of completed questionnaire for the request in RP (22.5%) and mildly Welsh-accented English (25%) than for the request in broadly Welsh-accented English (8.2%). In the bilingual Welsh audience, the request in Welsh yielded a significantly higher return of completed questionnaires (26%) than any of the English varieties (return below 10% for all three varieties).

About a decade later, focusing on the role of social psychological processes involved in language variation and change, the author of this chapter conducted his PhD project in sociolinguistics in the Danish city of Næstved in the late 1980s (Kristiansen 1991). Several methods were applied to shed light on how people expressed different language attitudes dependent on whether they were aware or not of giving them away – with the further perspective of studying the relationship of this difference (between consciously and subconsciously offered attitudes) to processes of change at the level of language use. The theatre-audience method was applied as a way of getting access to the subconscious level of the local population's ideological relationship with the variation that characterised speech in Næstved and its surrounding area. This variation could be described partly in terms of a nationally relevant distinction between 'high' and 'low' Copenhagen-accented speech (i.e. social-status related variation within the Copenhagen-based Danish standard language), partly in terms of 'mild' and 'broad' Sealand-accented speech ('mild' referring to speech which prevails over 'broad' in the general movement away from the traditional Sealand dialect towards the Copenhagen-based standard). Thus, the theatre-audience study (presented in English in Kristiansen and Giles 1992; Kristiansen 1997) was designed to elicit evaluative reactions to the same message delivered in the four varieties 'high, low, mild, broad'. The overall result showed, unsurprisingly, that the 'high' variety produced significantly more completed questionnaires (25.6%) than any of the other varieties (all three between 17% and 18%). However, other and more intriguing results also emerged as the collected data allowed for analyses in terms of audience characteristics based partly on information about the attended film (five different films were screened each night as the cinema complex contained five movie theatres), and partly on respondents' information about their age and residence (in Næstved itself or in the surrounding countryside). Some of these results are dealt with in more detail in Section 14.5.

To the author's knowledge, use of the theatre-audience method is described in English-language literature only for these two studies. With inspiration from the Næstved study, the method has been used in Scandinavia in three other cases, but with limited success. In two sociolinguistic projects (Maegaard 2001; Haugen 2004) that focused on how language-related values influence language use, the method failed to provide results due to low attendance – a problem which, in

both cases, was explained by the relatively small size of the research sites (around 7,500 inhabitants in both Tønder, Denmark, and Sogndal, Norway). In a study that aimed at comparing people's conscious and subconscious attitudes to foreign-accented Swedish, Årman (2011) collected data from three audiences attending the same theatre in Stockholm. The three varieties used for the loud-speaker request yielded completed questionnaires as follows (differences are significant): English-accented Swedish (38%), standard Swedish (24%), Persian-accented Swedish (11%). As each of the three audiences attended a live broadcast of opera shown by the cinema on single nights with a couple of weeks' interval, the falling responsiveness across the three nights may not be indicative of language attitudes, but a consequence of a likely increase of people in the audience that had already filled in the questionnaire, and therefore did not respond to it again. Årman himself draws attention to this as a validity problem. If such negative and problematic experiences are worthy of mentioning here, it is because they betoken some of the practical realities and rather complex logistics that have to be considered and handled in successful use of the theatre-audience method – a circumstance that no doubt sheds light on the scarcity of theatre-audience studies.

14.1.3   Main Characteristics

In order to clarify what is involved in terms of methodological characteristics, focus shall be put on a number of conceptual distinctions that are commonly treated as pertinent to the study of language attitudes. These distinctions concern the nature of the object of study, the methods used for data collection, the level of informant consciousness or awareness, the context of elicitation, and the methods used for data analysis.

14.1.3.1   Focus on Language Attitudes in Action

In the traditional view of attitudes as a psychological construct, an attitude as an object of study is normally considered to consist of three components or aspects: *cognition* (beliefs or knowledge), *affect* (feelings), and *conation* (behaviour, or behavioural disposition; see Chapter 1; Garrett 2010: 23). Researchers of attitudes may develop approaches and construct methods with the interest and aim of tapping into one of these aspects in particular. The theatre-audience approach is designed to illuminate the conative aspect, by putting focus on differential behavioural reactions to language varieties.

14.1.3.2   Focus on Indirect Elicitation

A tripartite division is often applied in presentations of the methodo-logical approaches to the study of language attitudes: societal treatment, direct elicitation, and indirect elicitation (see Chapter 1; Ryan et al. 1988; Garrett 2010: 37–52). The method commonly used to achieve indirect elicitation is the so-called *speaker evaluation paradigm* or *speaker evaluation experiment* (SEE).

The elicitation is indirect in the sense that informants are asked to evaluate speakers rather than speech as such. Such experiments make use of either one and the same speaker for the different varieties (known as the matched-guise technique or MGT; see Chapter 12) or of different speakers (known as the verbal-guise technique or VGT; see Chapter 13). A theatre-audience study is a variant of the SEE. Whether the design used is the MGT (as in the Cardiff study) or the VGT (as in the Næstved study), the elicitation may be said to be particularly *indirect* in the sense that the informants (i.e. the theatre audiences) are not asked about their beliefs and feelings in relation to either speech or speakers; they are asked to be cooperative by accepting an invitation to fill out a questionnaire about the film or play programme.

14.1.3.3   Focus on Implicit Attitudes

Scholars in different disciplines (social cognition, social psychology, and sociolinguistics) have always suspected that attitudes may vary in relation to what could be termed 'levels of consciousness'. Conceptions of how consciousness or awareness is involved may differ, but theorising on this matter typically involves a two-level division, which is expressed in terms such as conscious–unconscious (or subconscious), overt–covert, public–private, explicit–implicit. (Informative presentations and discussions of these issues may be found in a special issue of *Linguistics Vanguard* edited by Rosseel and Grondelaers 2019; see also Chapter 16.) The choice of terminology here is unimportant in the case of the theatre-audience method since respondents are in any case unaware that they are reacting to anything language related. If one chooses to talk of explicit versus implicit attitudes (in accordance with what seems to be the most established terminology in social cognition), what needs to be stressed is that implicit is taken to imply that the informants (the theatre audiences) are totally unaware of evaluating language use. In that sense, the language attitudes that emerge as differences in reactions to differences in language are to be seen as subconsciously offered attitudes.

14.1.3.4   Focus on Naturalness

Researchers of language attitudes elicit data from informants in a variety of contexts, which differ in ways that are likely to influence the informants' experience of the elicitation event as more or less natural versus artificial. This means that elicitation events can be characterised in terms of naturalness (i.e. their so-called ecological validity). The theatre-audience method is a way of collecting language attitudes data in a real-life, completely naturalistic setting.

14.1.3.5   Focus on Quantitative Analysis

With regard to the distinction between quantitative and qualitative approaches to the study of language attitudes, the theatre-audience method is indisputably quantitative in nature. Evaluation-based actions are collected in terms of the quantifiable proportion of sold tickets and the number of completed

questionnaires; they can only be subjected to quantitative analyses. The ratios of completed questionnaires and completable questionnaires (a number which corresponds to the number of tickets sold) are computed and compared across consecutive nights (which each represent a different language variety) in terms of both descriptive and inferential statistics.

14.2   Strengths and Limitations

In this section, issues of strengths and limitations will be discussed in theoretical terms of data validity – that is, the foundational concern that the collected data are relevant to answering the research question. (For further discussions regarding different aspects of the strengths and limitations of the SEE, see e.g. Chapters 12 and 13.)

14.2.1   Strengths

The major strengths of the theatre-audience method in terms of data validity are linked to the data's nature as behavioural reactions in a naturalistic setting and to their nature as subconsciously offered responses in indirect elicitations.

14.2.1.1   Behavioural Reactions in Naturalistic Setting

The theatre-audience method is an experiment. Experiments in sociolinguistics (as well as other social and behavioural sciences) may take many forms (Kristiansen 2010a; see also Chapters 12, 13, 15, and 16) but essentially, what characterises experimentation as an approach to research are the efforts made to control the different factors at play during data collection. In particular, such efforts are considered necessary in order to minimise the impact of potential confounds and to secure the *reliability* of the data – that is, the replicability of the data collection and, hence, the possibility of comparing and controlling results.

However, experimentation that elicits data from informants has always been faced with the problem that precautions taken to secure replicability tend to turn the experimental situation into a laboratory-like setting. Much language attitudes research has been carried out in school settings where students are asked to offer a pen-and-paper response to a given task. These responses may be interesting in their own right, but one may question their validity as data on the informants' language attitudes. Empirical findings in laboratory-type experiments may have little in common with language attitudes observed in real-life situations.

The theatre-audience method thus shares many of the strengths of the MGT and the VGT – but it also has the important additional advantage that it replaces data from laboratory-type experiments with measurement of behaviour in a real-life setting. Even if the literature has provided little more than agenda-setting statements in this regard, scholars in general are likely to rank behavioural data

from naturalistic settings high in terms of validity, and they will consider the method's ability to collect such data a major strength in the study of language attitudes.

14.2.1.2   Subconsciously Offered Responses in Indirect Elicitation

Why should indirect elicitation of implicit (subconsciously offered) attitudes – as opposed to direct elicitation of explicit (consciously offered) attitudes – be a strength of the theatre-audience method? In fact, the reality of these distinctions (explicit vs. implicit attitudes, and direct vs. indirect elicitation), and hence their relevance to the study of language attitudes, has been seriously questioned both in social psychology and sociolinguistics (see e.g. Pantos 2019 and other articles in Rosseel and Grondelaers 2019). Howard Giles explored the direct-versus-indirect issue already in his first study in the UK (Giles 1970) and found little difference in evaluations of English accents as tapped by direct and indirect methods. Making use of the MGT in his sociolinguistic projects in New York City and Philadelphia in the 1960s–70s, William Labov found little support for a difference between explicit and implicit language attitudes (*overt* and *covert* norms in his terminology; Labov 2001: 215–223; for a discussion, see Kristiansen 2011).

The author's own studies in Denmark show a very different picture (Kristiansen 2009).[1] In this research, the author defined and operationalised the notion of *implicit language attitudes* as attitudes that are somehow expressed without the informants being aware of expressing attitudes towards language. Based on these experiences and results – which strongly indicate that change in language use is governed by implicit attitudes – the author does find it justified and imperative to argue that studies of sociolinguistic change (for this notion, see Coupland 2014) should not neglect the potential importance of the explicit/ implicit distinction – and furthermore that elicitation of implicit attitudes (in the sense above) is best achieved through carefully designed indirect elicitation (Pharao and Kristiansen 2019; see Preston 2019 for a different perspective).

If priority is given to implicit attitudes offered in indirect elicitation, as argued above (see also Kristiansen 2015), the data collected by the theatre-audience method is to be highly ranked in terms of validity, and the method's ability to collect such data must be considered a major strength.

14.2.2   Limitations

When limitations are mentioned in the same context as strengths (as in the heading of Section 14.2), it quite naturally reads as 'weaknesses'. If the use of a method involves a series of practical problems and difficulties, these may certainly be characterised as weaknesses of the method. This chapter shall return

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1 See Chapter 21 for a discussion of further examples of mixed-methods research whose results show meaningful differences between direct and indirect methods of attitude elicitation; see also Soukup 2015.

to limitations or weaknesses of the theatre-audience method in this sense in Section 14.3. First, however, the potential intrinsic limitations of the method as an instrument for collection of valid data will be discussed. Critical attention can be drawn to two of the method's intrinsic features: Data are elicited from the same type of people, not from the same people; and each person evaluates only one of the language varieties.

14.2.2.1 Data Are Elicited from the Same Type of People, Not from the Same People

Why is it that the theatre-audience method cannot collect evaluative reactions to different varieties from the same people? First of all, if people come to the theatre on several of the experimental nights and have already responded by filling out a questionnaire on the first night, they are not likely to do so again. Also, if people hear the loudspeaker message several times, they are likely to register and ponder about the change in linguistic delivery – and thus the method's essential purpose of ensuring implicit elicitation is compromised. In any case, a considerable participation of the same people across nights makes it problematic to interpret a falling responsiveness across nights as data that answer questions about language attitudes.

However, for the collected data to be valid as attitudinal data in comparison across judged varieties, the 'attitude holders' (people in the audiences) have to be comparable across nights. Since they cannot be the same people, efforts should be made to ensure that an audience consists of the same type of people.

Fulfilment of both requirements (i.e. address the same type of people but not the same people) may not be easy to achieve. For instance, Årman, in his Stockholm study (2011), tried to elicit data from the same type of people by choosing to conduct the experiment only on nights when the audience could be characterised as particularly opera-interested, but as this type of audience gathered to attend transmissions of different operas with considerable time intervals in between, the risk is great that the study did not comply satisfactorily with the requirement of not addressing the exact same people. No doubt, the safest way of fulfilling both requirements is to conduct the experience on subsequent nights during a period with the same film or play on the programme.

Even if that approach may allow the researcher to argue that addressing the same people was avoided (since few, if any, come to watch the same film or play two nights in a row), it still needs to be argued that the same type of people was addressed across all nights – or else differences in responsiveness to the request may be due to other factors than language attitudes (and the data would not be valid). For the sake of illustration, it may (stereotypically) be assumed that women are much more cooperative with such requests than men, and that far more women than men will go to the movie on a night when the TV at home transmits an important football game. If so, a high responsiveness on the football game night cannot be interpreted as an expression of (positive) attitudes towards the language variety which was used for the loudspeaker address on that night.

Control of such factors is difficult to achieve, but as far as possible, it will always be relevant to consider which nights of the week to choose for the experiment, both in general (e.g. avoid or include weekend nights?) and in relation to other events known from early announcement (like a national football match on TV). It may be noted that Bourhis and Giles (1976) checked for 'night effect' by exposing the movie-goers of their Cardiff study to both the RP variety and the broadly Welsh-accented variety on two nights; they reported that the responsiveness was the same on both nights for both varieties. At the stage of analysis, the demographic composition of the audiences may to some extent be compared across nights on the basis of background information from the respondents, if the questionnaire asks for such information (e.g. age, gender, and residence). In general, it seems reasonable to surmise that the demographic composition of the audiences across nights – that is, the issue with finding the same type of people – becomes a lesser problem the bigger the audiences.

14.2.2.2   Each Informant Evaluates Only One of the Language Varieties

The circumstance that participants in a theatre-audience study react to only one language variety may be seen as a limitation in terms of data validity if language evaluation is assumed to be a process that somehow involves contrastive comparison of varieties. In that case, the consequence of using a method based on non-contrastive presentation of varieties may be that little or no difference is found (as suggested by Grondelaers et al. 2010: 102), and one has an argument for seeing the typical SEE, with its contrast-focusing experimental set-up, as a better approach (independently of whether MGT or VGT is being used) to activate the different social meanings.

In considering this issue, researchers should recall that a main motivation behind Bourhis and Giles' (1976) devising of the theatre-audience method was to investigate whether differently accented voices would still be differently evaluated even if informants were not provided with the usual contrast-focusing evaluative set (of different voices and rating sheets). The results that have been obtained with the method, both in the Cardiff study and in the Næstved study, show that the non-contrastive presentation approach to data collection does not hinder a varied response pattern to emerge across audiences (varieties). Thus, even if it should turn out to be true that data obtained with a contrast-focusing experimental set-up result in a sharper picture in terms of difference, one can always claim priority for the theatre-audience data in terms of ecological validity.

14.3   Research Planning and Design

The practical issues to be solved in a theatre-audience study present themselves as a three-step endeavour: gaining access to theatre audiences, preparing for data collection, and conducting data collection.

14.3.1 Gaining Access to Theatre Audiences

In order for preparations not to be in vain, the first thing to do in the planning of a theatre-audience study is to obtain an agreement with the owner or director of a suitable establishment. In relatively big cities (which are to be preferred as research sites), there will typically be several cinemas available for choice. As these will feature different film programmes that attract different audiences, the research question (what is the researcher interested in knowing more about?) is relevant for the choice of cinema, in principle. In practice, one may have to consider it a success just to find an owner who accepts to open the doors of their cinema for the conduction of such an experiment. Chances are best if one is lucky enough to have a mother or an uncle or an acquaintance who owns or directs a cinema and wants to help out. More generally, one will have to rely on the hope of finding an owner who can see their own interest in receiving an analysis of the answers given in the questionnaires.

14.3.2 Preparing for Data Collection

Beyond the practical aspects of selecting the best possible row of nights for the experiment (see discussion in Section 14.2.2.1), the main preparation for data collection consists in developing the stimulus material and the measurement instrument.

14.3.2.1 The Stimulus Material

Although the choice of linguistic variation to include in the experiment is defined by the research question, and therefore does not belong among the practical issues to be dealt with, it should be noted that the nature of the targeted variation is likely to impact on the practical possibility of recording representative voices. As for SEE research in general, it also goes for the theatre-audience approach that there may be practical problems with finding a speaker who is capable of producing two or more varieties in a convincing manner – and this may be of decisive importance to the choice of methodological technique (i.e. MGT or VGT). Considerations of this issue will depend on research interest and research site. For instance, in a bilingual community in Wales (e.g. Cardiff), it may not be too difficult to find a speaker who can convincingly produce both RP and standard Welsh, as well as mildly and broadly Welsh-accented English – whereas in Stockholm, one would hardly even try to search for a speaker capable of producing convincing versions of both English-accented and Persian-accented Swedish alongside standard Swedish. As to the gamut of variation from traditional dialect to standard language which characterises many contemporary European communities (e.g. Næstved), the possibility of finding speakers with an all-embracing competence in the desired variation seems a more open question. If the researcher has aimed for a MGT design and has searched for a usable speaker without success, the VGT design is a workable alternative, but additional

considerations concerning comparability (e.g. voice quality) come into play when the stimuli voices (i.e. varieties) are recorded from different speakers. (For more concrete discussions of how to record and technically process MGT and VGT stimulus material, see Chapters 12 and 13.)

The role of context should be taken into account. Bourhis and Giles (1976: 14) report from the preparation for their Cardiff study that '[t]he director and some staff members of the theatre listened to the guises and were satisfied that the tone and wording of the message were in line with the style of elocution used for theatre announcements'.

As to the content of the address to the audience, it should provide information about the survey and its purpose, and give clear instructions on how to comply with the invitation to participate. The owner or director of the establishment should of course be invited to have their say with regard to the purpose (e.g. focus on habits and/or wishes of their customers). In the Cardiff study, the loudspeaker message sounded as follows: 'Good evening ladies and gentlemen, may we have your attention for a moment. We are conducting a short audience survey to help plan future programmes. You will find questionnaire forms in the foyer. We would be most grateful if you could complete the questionnaire forms and return them to the box office this evening. Thank you for your cooperation' (Bourhis and Giles 1976: 14). This message took approximately 40 seconds to read. Message length is certainly an issue to consider, especially if the message is played to the audience at the end of the film when people are on their way out and eager to get home.

14.3.2.2 The Measurement Instrument

The dependent variable in a theatre-audience study is simple: It is the count of actually completed questionnaires compared to the count of sold tickets (which equals the number of potentially completed questionnaires). In that sense, the construction of the questionnaire is not an essential part of the measurement instrument of the theatre-audience study. However, if one wants to include demographic characteristics of the audiences in the analysis of count patterns, this will have to be based on information from the respondents (taken as representatives of audiences), and, in that case, questions about background information (e.g. age, gender, and residence) become an essential part of the measurement instrument.

For people who choose to respond, it is of course essential that they find it meaningful, and perhaps even interesting, to fill out the questionnaire. Furthermore, it should be stressed that within the framework of the (cinema owner's) survey study, the questionnaire with its questions is the measurement instrument. Like with the content of the announcement, the cinema owner should have their say with regard to the questions that are asked in the questionnaire. Most importantly, the fact that audiences are invited to – and do – participate in a real survey means that there is no deception involved.

14.3.3 Conducting Data Collection

In order to obtain data that are comparable across nights (and thus varieties), the main concern has thus far been with design efforts to secure data validity: the audience (i.e. listener–judges of varieties) has to be the same across nights – so that differences in responsiveness cannot be ascribed to audience characteristics rather than varieties; the speaker (of the varieties under investigation) has to be the same or as similar as possible across nights (either in a MGT or VGT design) – so that differences in responsiveness cannot be ascribed to other speaker characteristics than varieties. At the stage of data collection, the researcher's concern turns to data reliability: For results to be comparable across nights (and thus varieties), one also needs to be sure that one has measured in the same way every night – so that differences in responsiveness cannot be ascribed to lack of measurement consistency.

After all the efforts it takes to prepare a theatre-audience study, it would be almost unbearable if things go wrong at the stage of data collection. Many things can go wrong, so the importance of being well-prepared and in full control cannot be overestimated. Basically, there should be no difference in when and how the message is played to the audiences, and no difference in how easy or difficult it is for people to get access to and fill in the questionnaires. The researcher should make sure that the right varieties are in place for loudspeaker diffusion on the right nights (and pray that the loudspeaker system works as it should on all nights). The researcher should also make sure that the availability of questionnaires and pencils, likely to be in the hundreds, does not become a problem. If the experiment is conducted with two or more audiences on the same night, the filled-out questionnaires from each audience should be collected and kept separately. Finally, as the number of sold tickets is just as crucial data as the filled-out questionnaires, it is crucial not to forget, at the end of the day, to get that number from the cashier (an almost unthinkable blunder).

The complexity of these logistics increases with the number of audiences that are submitted to the experiment on the same day. It is reasonable to assume that the risk of mishaps is least with only one audience per night, as in the case of the Cardiff play study. The Cardiff cinema study, by contrast, included two audiences on the same night in prolongation of each other. In the Næstved study, as many as five films were played simultaneously (in five different theatres, see Kristiansen 1991); two were double-length films, and the other three were of normal length and were played twice nightly. Thus, the experiment was conducted at eight performances each night, with different starting and ending times. Over the period of four nights, the task of exposing people to the same experimental experience, in terms of both appeal administration and response administration, included thirty two audiences. Many helpers are needed for such an enterprise to succeed, and agreements about responsibilities (who does what when) have to be crystal clear.

14.4   Data Analysis and Interpretation

The analysis of the collected data is straightforward: The initial descriptive approach simply establishes the ratios of completed questionnaires and completable questionnaires (known by the number of sold tickets), and compares these ratios across data samples. Subsequently, if one can argue that the people in the audiences are representative of a broader population, the ratio-differences may be submitted to an inferential approach (i.e. statistical significance testing) that helps decide how to talk about the findings: Are the differences found in the data to be seen as random (non-significant, i.e. probably existing only in the data, not in the population), or can one generalise and talk about the found differences as something that is valid for the broader population (are the differences significant)? The collected data are registrations of whether people did or did not fill in a questionnaire. Such either–or data are of so-called *nominal* nature, and the appropriate significance test is the chi-square test.

If audiences are judged to be representative of a population, and the collected data are judged to be valid and reliable, the responsiveness across nights (and thus varieties) can be interpreted as the population's attitudes towards the varieties.

14.5   Case Study: Language Attitudes in Denmark

Choosing a cinema was no issue in the aforementioned Næstved study (Kristiansen 1991; presented in English in Kristiansen and Giles 1992; Kristiansen 1997) as there was only one cinema in the city at the time (which had 38,000 inhabitants, with some 45,000 more living in the surrounding area). In return, the cinema complex consisted of five theatres, showing different films, which meant that different audience types attended the same cinema complex simultaneously. Access was obtained through a combination of distant acquaintance with the cinema owner and their interest in the survey study. On the assumption that the weekday/weekend distinction might be of relevance for the demographic composition of audiences, weekdays were chosen (as four consecutive nights were needed). In order to secure complete ignorance in the audiences about the experiment, the four varieties were played from Monday through Thursday in the order of 'high–mild–low–broad' (see Section 14.1.2). That order was assumed to be from the most to the least expected variety to be heard over the cinema loudspeaker system, and was chosen to avoid a possible rumour effect on subsequent nights if an unexpected variety ('broad' in particular) was used on the first night.

A VGT-based approach was used for selecting the voices since previous attempts to find a person capable of performing the desired variation for a MGT-based SEE in Næstved had failed. In order to minimise the potential impact of person-related factors, the readers were chosen and trained so that

their readings differed as little as possible with regard to voice quality, speech rate, and fluency. All four voices were female voices, and three of the women – representing 'high', 'low', and 'mild' – were of the same age, around forty years old. However, as 'broad' is hardly spoken naturally by anyone of the age of forty, a seventy-five-year-old woman was chosen for the 'broad' voice. On the one hand, this choice contributed to the ecological validity of the study (as 'broad' is associated with older people) but on the other hand, the choice may be said to endanger data validity as it cannot be known what role perceived voice age (instead of attitudes to the variety) played when people in the audiences either accepted or rejected to cooperate with the request.

In the interest of facilitating a characterisation of audiences in terms of demographics, respondents were asked at the end of the questionnaire to give information about their age, gender, education/occupation, and residence (i.e. Næstved or environs).

The loudspeaker appeal to fill out a questionnaire after the film was introduced by the kind of bell-sound that often introduces messages in public places (e.g. in airports). The message was one minute long and was addressed to each audience over the loudspeaker system in both the theatre and the foyer just before the film started. A 20-second reminder was transmitted in the theatre just after the film had finished, as well as during the break in the case of the two double length films. All of these loudspeaker addresses were played from tapes by a team of helpers who had to be present in the film control room and do their job of playing the right tape at the right moment. Luckily, we succeeded with this without accidents of any kind. Use of more advanced contemporary audio playback equipment is likely to reduce the risk of both human-produced and technology-related mishaps in a complex set-up like this. Another team of helpers saw to it, before the beginning of each film (eight performances on each of the four nights), that plenty of questionnaires and pencils were placed so that they were easily accessible by the exit of all theatres. They collected the filled-out questionnaires after each performance and kept them apart in eight piles. In order to secure full control in this latter respect, the questionnaires used in the different theatres were printed on differently coloured paper.

In the Næstved study, it seemed reasonable to assume that the sample of 956 movie-goers, who came to watch five quite different films, were representative of the population living in Næstved and its surrounding area (or at least representative of movie-goers on weekday nights). Hence, the ratio differences could be submitted to significance testing.

As mentioned in Section 14.1.2, the total return of completed questionnaires was significantly higher for the 'high' voice (25%) than for the other three voices (17–18%). Interpreted as a picture of language attitudes, this response pattern indicates more positivity towards the 'high' variety than towards the three other ways of speaking that can be said to belong to the linguistic 'frame' of the local speech community. However, when ratios were calculated and tested for each of the five film audiences, differences emerged which easily could be interpreted as plausible language ideological differences within the community. For instance,

the older audiences showed positive attitudes towards both Sealand varieties, whereas the younger audiences could be divided into a predominantly Næstved-affiliated audience, which responded positively to the two 'urban' varieties ('mild' and 'low') and negatively to the 'countryside' variety ('broad'), and a predominantly environs-affiliated audience, which provided the opposite pattern. Furthermore, an analysis of respondent age across the five nights showed that the mean age was significantly lower on the night the 'low' variety was used, which was interpreted as evidence for more positive attitudes towards 'low' speech among younger people than among older people in the Næstved area.

14.6   Further Important Considerations

To finish, it seems appropriate to reflect on possible explanations for the scarcity of theatre-audience studies.

Ethical concerns might be an issue? Attention to scientific ethics (is this an acceptable way to treat people?) should always be on the researcher's agenda, and it may generally be true that ethical issues become more complex and difficult to handle when experiments are moved from laboratory-like settings to real-life contexts. On the other hand, it seems quite indisputable that theatre-audience studies are easy to design and conduct so that people in no way are cheated: They participate in the survey they are asked to participate in.

The existence of suitable contexts might be an issue? If the notion of theatre is taken in a broad sense, the kinds of public audiences that are being addressed over a loudspeaker system are numerous – but it is no doubt true that the number of such contexts is considerably reduced by the request that it should be possible to establish a ratio between actual and possible responses (i.e. completed and completable questionnaires). Nevertheless, there are many kinds of theatres and arenas where this is possible.

In brief, it must be realised that the scarcity of theatre-audience studies is most likely to be explained by the number of practical problems involved in planning and administrating data collection – which makes it a crucial issue of this discussion.

Language attitudes can be investigated by use of many different methods (as evidenced by this volume). Thus, a particular method's usefulness (beyond judgements of relevance based on fundamental theoretical conceptions of the nature of attitudes, as touched upon in Section 14.1.3) can be judged on the value of the data it produces – in comparison with data produced by use of other methods. The crucial parameter in such comparison will be the relation between workload and results. A method that requires much work scores low on usefulness if the same results can be obtained with a method that requires far less work.

Evaluations of methods along such lines are well known with regard to the usefulness of replacing or complementing direct elicitation with typically more labour-intensive indirect elicitation methods (as touched upon in Section 14.2.1.2).

But what if results from indirect elicitation in a laboratory-type SEE are compared with results from indirect elicitation in a naturalistic SEE? The Næstved project from the late 1980s (Kristiansen 1991) – within which the cinema study was just one of several methods used for the study of language attitudes in the community – allows for such a comparison, and it can be asked: Was it useful, was it worthwhile, to conduct the labour-intensive cinema study?

For indirect elicitation in the laboratory-type SEE, the VGT was used (as mentioned above, attempts to find a person capable of performing the desired variation for a MGT-based SEE had failed). The audiences included two different groups in terms of age and roles: young students (both high school and vocational) and adult *gatekeepers* (primary school teachers, and personnel managers; described in English in Kristiansen 1998). The participants evaluated the three dominant ways of speaking in the local speech community: 'high', 'low', and 'mild' ('broad' was not included as it would have exposed language attitudes as the interest of the experiment and ruined the aim of collecting subconsciously offered attitudes). The main results showed a general downgrading of 'mild', and a more positive evaluation of 'low' than of 'high' was found among younger people, in contrast to the opposite pattern among older people.

Where does this lead with regard to judging the usefulness of shouldering the efforts of preparing and carrying out the naturalistic SEE (the cinema study) as part of the Næstved project? If focus is put on the language-ideological situation among young people in the area, it must be said that the usefulness was limited in the sense that the study did not illuminate the ideological aspect of sociolinguistic change in the Næstved area beyond the picture which also appeared, even clearer, from the SEE results (see the discussion in Section 14.2.2.2). Nevertheless, in this perspective one might still argue for the method's usefulness by emphasising that the SEE-based picture gains in credibility by dint of the similar results derived from data that many will rank higher in terms of validity.

In another perspective, the cinema study was useful by revealing that the 'ordinary' adult part of the population (the movie-goers) held positive reactions to Sealand speech (both 'mild' and 'broad') – in contrast to the adult gatekeepers in the laboratory-like SEE, who were negative to 'mild' Sealand speech (not exposed to 'broad'). Thus, the cinema data reveals an age-related divide with regard to the local Sealand speech in the Næstved area speech community at the end of the 1980s. To the extent that this can be seen as a picture of language-ideological change (in apparent time), the finding is not only useful but of great importance, as it is the only existing subconsciously offered evidence of this change, which can be assumed to have gained momentum among younger people in the 1960s–70s.

Suggested further readings

Bourhis and Giles (1976); Fasold (1984); Garrett (2010); Kristiansen (1997); Kristiansen and Giles (1992)

15 Experimental Methods to Elicit Language Attitudes among Children

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15.1   Introduction

Although language attitudes are typically studied among adults,
research at the intersection of developmental psychology and sociolinguistics
suggests that the capacity to view language as providing social meaning emerges
early in development. This chapter offers an overview of developmental research
on infants' and young children's attention to linguistic varieties (i.e. languages,
dialects, and accents) as conveying social meaning. Specifically, infants and
children understand that language varieties are markers of social group member-
ship (see Chapter 1) and they can extract detailed social information from the
varieties spoken by other people. This chapter reveals the process by which infants
begin to both notice differences between people based on language, and express
social attitudes that reflect societal input about linguistic status and stereotypes.
Infant studies rely on subtle responses that gauge preverbal infants' earliest behav-
iours, such as sucking, looking, and reaching. In childhood, verbal responses can be
used to assess the range of preferences, inferences, and attitudes children have
about people who speak in different ways. Initial attitudes often reflect a preference
for the familiar, but with age, children start to attend to linguistic status as commu-
nicated by their societies. This chapter introduces experimental methods to study
infants' and children's language-based social responses.[1]

15.2   Overview of Methods with Infants and Young Children

15.2.1   Methods with Infants

Even before infants can speak, they already demonstrate impressive
abilities to differentiate between languages (DeCasper and Fifer 1980; Mehler

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[1] Unlike the other chapters in this volume, this one does not include a separate discussion of
strengths and limitations because an overview of the wide range of available methods with infants
and young children (with some evaluation of strengths and limitations interspersed) was deemed
more useful.

et al. 1988; Fifer and Moon 1989) and make inferences about the social nature of language (Liberman et al. 2017a). Because infants cannot directly tell researchers their thoughts or preferences (as can older children, reviewed in Section 15.2.2), scholars studying infant language development and cognition have constructed creative ways to measure infants' non-verbal behaviours as an indirect way to elicit language attitudes. This section reviews methods that capitalise on infants' abilities at different ages – sucking on a pacifier, looking at a screen, reaching for an object – that reveal infants' language abilities, preferences, and attitudes as infants' behavioural repertoire expands. Infants' ability to differentiate between different languages and to exhibit preferences for familiar languages (described in Section 15.2.1.2) do not reflect social biases per se, but lay the foundation from which social reasoning about language and linguistic attitudes emerge in childhood.

15.2.1.1   Preferences and Habituation/Familiarisation

There are two common approaches to measuring infants' non-verbal behaviours: *Preference* paradigms and *habituation/familiarisation* paradigms. The general logic behind preference paradigms is that infants respond to things that they recognise as familiar: They suck harder or faster on a pacifier while they are watching or listening to something familiar and they look longer at a familiar video or image. The general logic behind habituation/familiarisation paradigms is that if the researcher repeatedly shows the same thing to an infant, they will process the information and begin to disengage – they stop or reduce their sucking or turn away from the screen. Then, if introduced to a stimulus they perceive as new, infants' re-engagement (they suck harder again or look back at the screen) indicates that they detected a difference between the old and new stimuli (Fantz 1964). Classic habituation methods involve showing infants sufficient trials until their responses show evidence of disengagement (e.g. they start to look away or learn to associate a specific stimulus with a specific response), and then infants are shown a new stimulus and tested on whether they re-engage. In this sense, the length of an experimental paradigm is often contingent on the infants' learning and engagement. Familiarisation methods use a related logic that depends on infants' re-engagement with novelty, yet these studies expose infants to stimuli using a fixed number of trials and measure infants' subsequent responses (i.e. they are generally not infant-contingent; for a review, see Aslin 2007). Infants' early preferences and their ability to distinguish between different auditory stimuli, as these methods reveal, provide the foundation from which language attitudes start to develop.

15.2.1.2   Studies of Newborns

Very early in development, newborn infants already orient towards language in systematic ways. Newborns recognise the sound of their mother's voice compared to another woman's voice (DeCasper and Fifer 1980), prefer the

sound of the language spoken by their mother, even as prenatal foetuses (Moon et al. 1993; Mehler et al. 1988; Fifer and Moon 1989), and can tell the difference between speech and non-speech (Ramus et al. 2000; Peña et al. 2003; Vouloumanos and Werker 2004, 2007). Indeed, using heart rate data, Kisilevsky et al. (2009, 2011) even find evidence of foetal attention to their mother's voice and their native language. How did researchers discover these early patterns, when newborn infants cannot yet speak or adeptly control their head and eye movements? Researchers inferred that infants' patterns of sucking on a non-nutritive nipple corresponded to the sounds that babies were interested in hearing.

A classic preference paradigm examined newborn infants' preference for their native language (Mehler et al. 1988; Moon et al. 1993). Researchers had infants suck on a nipple connected to a pressure transducer that recorded the intensity and frequency of their sucking, which then activated language for them to hear. Infants sucked more to activate recordings of their native language than an unfamiliar language. In lay terms, infants' sucking patterns are interpreted to mean 'I've heard sounds like that before and I like it!'. These markers of infants' language preferences reflect early evidence of ingroup bias on the basis of language.

Studies have also used habituation/familiarisation paradigms to demonstrate infants' ability to discriminate their own language from an unfamiliar language (Mehler et al. 1988), and even to provide evidence of discrimination of two unfamiliar languages, provided they are unfamiliar to the infants (Nazzi et al. 1998). In a classic habituation study, newborn French infants were exposed to several minutes of English speech. Over time, they started to lose interest and suck less (habituation). Once their sucking reduced to a pre-determined level, a new audio stimulus (e.g. Japanese) was introduced. When they heard Japanese, infants' sucking patterns changed (dishabituation), leading researchers to conclude that infants could tell the difference between the two types of speech. This pattern represents a different infant response than the familiarity preference. Here, the lay inference is that infants' pattern of sucking means 'this sounds different from what I heard before!'. Indeed, the ability to differentiate between different types of input are a necessary precursor to the formation of language-based attitudes.

Notably, these two methods may overlap. For instance, Mehler et al. (1988) used a habituation method to demonstrate that French newborn infants who were habituated to French voices would then dishabituate to Russian voices, and vice versa, providing evidence of infants' ability to discriminate the two languages. Yet, there was also evidence of preferences in infants' responses – infants who heard French samples during the initial habituation had a higher sucking rate during this initial presentation than did infants who were initially habituated to Russian. As the authors write, 'One interpretation of these asymmetries is that four-day-old infants not only discriminate the two languages, but also that they prefer to listen to French' (Mehler et al. 1988: 154).

15.2.1.3   Studies of Older Infants

After the newborn period, infants' patterns of looking become a useful method to understand their language attitudes and inferences. There are several ways to measure looking time, including total looking time, average fixation duration, time to habituation, directions of looking, and attention-switching between simultaneously visible stimuli (Aslin 2007). Similar to studies of newborns, these studies capitalise on infants' preferences for things that are familiar (using preference paradigms) and their ability to detect change or the unexpected (using habituation/familiarisation paradigms).

Studies measuring how long infants look at a display can provide insight into their early language preferences. In an experiment conducted by Kinzler et al. (2007), five- to six-month-old infants from monolingual English families looked longer at a video of someone who previously spoke English rather than someone who previously spoke Spanish, again indicating a preference for their native language. Likewise, habituation studies of five-month-old infants suggest that they orient to a novel language after being habituated to a different language (Nazzi et al. 2000). These abilities include discriminating their own language from a neighbouring language or dialect (e.g. English vs. Dutch or American English vs. British English) or two unfamiliar languages provided they are sufficiently different in rhythm (e.g. Italian vs. Japanese). In a related study, Australian six-month-old infants looked longer at speakers of Australian English over South African English speakers. Infants demonstrated this difference even earlier (at three months) when presented with a contrast between Australian English and American English, a more familiar non-native accent (Kitamura et al. 2013).

Looking-time methods have also examined infants' mapping of language to social relationships. Specifically, twelve-month-old infants were familiarised to people who either speak the same language or different languages. Infants' subsequent patterns of looking suggest that they expect people who speak the same language to like the same foods and to interact positively with one another (Liberman et al. 2016, 2017a), highlighting the infants' capacity to organise the input of their environment to understand social group boundaries (Liberman et al. 2017b). Together, these methods reveal sophisticated reasoning about language – infants orient to the language spoken at home, they can tell the difference between different languages, and they use language to understand other people's social relationships.

A related method to study infants' language abilities is the conditioned head turn procedure (Werker and Tees 1984; Kemler Nelson et al. 1995; Werker et al. 1997). In this method, infants are first trained to turn their head in response to a change in sound, such that every time they correctly turn their head (*hit*), they are presented with a visual reinforcement (e.g. a box will light up to reveal toys). Once they associate a change in sound with this visual reinforcement, the researcher gradually delays turning on the reinforcer (so infants can no longer rely on the reinforcer as signalling a stimulus change). Then, infants are

randomly presented with experimental and control trials and their anticipatory head turns are recorded. This method has primarily been used to test the extent to which older infants are capable of differentiating among different kinds of sounds (see also Jusczyk and Aslin 1995; Saffran et al. 1996, 1999), but this method has also been adapted to study infants' perceptions of different accents (Butler et al. 2011).

Finally, for older infants with more advanced motor skills, researchers have examined how reaching behaviours can indicate preferences. Kinzler et al. (2007, 2012b) showed ten-month-old infants from monolingual English and monolingual French families videos of English and French speakers. Both speakers, side-by-side, offered the infant a toy, and then real versions of the toys appeared in front of the infant. Researchers observed which speaker's toy (English or French) infants selected. Infants were more likely to take the toy from speakers of their native language. This method, though limited to older infants who can control their reaches, allows for a more direct measure of infants' preferences. As infants' motor skills further expand, they might also crawl or share resources between people to demonstrate their preferences (Kinzler et al. 2012b).

15.2.1.4   Social Learning Tasks in Older Infants

Young children also attend to language to figure out who to learn from, presumably to learn culturally relevant information. In a study of monolingual fourteen-month-olds in Germany (Buttelmann et al. 2013), infants were randomly assigned to an 'ingroup' or an 'outgroup' condition, in which they were first introduced to an individual who either spoke German (the children's native language, i.e. the 'ingroup' condition) or Russian (an unfamiliar language, i.e. the 'outgroup' condition). Then, infants watched the speaker perform a novel action, such as turning on a light by touching their head to the light. Infants in the ingroup condition were more likely to copy the novel action (turning on the light with their head instead of their hand) compared to infants in the outgroup condition. As further evidence that infants view a person's language as related to their knowledge, Begus et al. (2016) observed that infants' neural responses reflected an expectation that they would receive information from native speakers, suggesting that an intrinsic motivation to learn and obtain information may be driving this social preference.

15.2.2   Methods with Young Children

Increased awareness of how early language attitudes develop has increased interest in studying children. Building on the findings observed in the infant studies described previously, studies with children can ask participants to directly report on their experiences and preferences. Studies of children's language attitudes can include a variety of methods and measures, but the focus here is on common practices among language attitude researchers.

15.2.2.1   Social Preferences Tasks

One of the simplest methods to assess language attitudes in children is to present children with two people who vary on one dimension (e.g. language, dialect or accent) and have the children select one of those two people in response to the researcher's question(s). For example, researchers might ask the children which person they prefer as a potential friend or which person they think is more likely to demonstrate positive traits. The researchers then record which person the children select. Many studies using this design have found persistent and robust evidence of children's preferences for native language speakers (Kinzler et al. 2007, 2009; Kinzler and DeJesus 2013a), even among bilingual children (Souza et al. 2013; DeJesus et al. 2017) and children living in linguistically diverse communities (Paquette-Smith et al. 2019). These findings represent both preferences for speakers who use the child's native language (a form of ingroup preference) and preferences for people who are native speakers (whether or not children hear that accent in their environment). Many of these studies employ a matched-guise procedure, in which participants evaluate two speech samples recorded from the same person to control for individual vocal features (Lambert et al. 1960; Lambert 1967; see also Chapter 12). In addition to eliciting direct judgements, some studies also infer children's preferences by asking them to distribute resources between speakers, showing that children tend to give more resources to members of their accent ingroup (Spence and Imuta 2020).

Children's explanations of their choices can also be useful to understand the mechanisms that might be at play and the extent to which children are aware of their selection patterns and willing to directly report a category preference (e.g. responding 'because they spoke my language'). That said, knowing they will be evaluating their own choices might lead children to (unintentionally or not) change their responses. Children also often provide uninterpretable data, such as responding 'I don't know' or 'I liked their hair colour', even when the child selected all speakers of their native language. Restricting children's responses to binary choices (e.g. choosing speaker A or speaker B) may be easier for younger children to understand than questions with more response options. However, binary choices have limitations since they may suggest to participants that both choices are mutually exclusive or that there exist no alternative choices. Depending on the question of interest, it may be useful to offer a different set of options, such as explicitly allowing children to choose both speaker A and speaker B, rating each speaker on a five-point scale, or having more than two targets to choose from.

15.2.2.2   Social Learning Tasks

Children's social learning, and especially their willingness to accept new information from other people, is subject to a variety of influences. For example, children selectively learn from people who have not provided inaccurate information in the past (Jaswal and Neely 2006; Koenig and Jaswal 2011;

Pasquini et al. 2007; Rakoczy et al. 2009). In addition to prior accuracy (a particularly strong guide to children's social learning), studies of children's social learning also reveal preferences based on language. In one study, monolingual English-speaking four- and five-year-old children were presented with two speakers: One spoke in English with an American accent; the other spoke in English with a Spanish accent (Kinzler et al. 2011). Each actor then silently demonstrated the function of an unfamiliar object (such as rolling a wooden orange juicer on a table or spinning a black toilet plunger like a top) and children were asked what they thought was the correct way to use the object. Children tended to select the American-accented speaker's demonstration, even when both actors had previously only spoken in nonsense speech that did not provide any meaningful semantic content.

Studies showing a preference for familiar languages are robust; however, in some cases other factors, such as reliability or context, matter more. For example, children select the testimony offered by an accented speaker when that speaker had been accurate and the native speaker had been inaccurate, with a relative preference for accuracy over familiarity emerging in early childhood (Corriveau et al. 2013). In a related study of nineteen-month-olds' social learning, Howard et al. (2014) found that neighbourhood linguistic diversity, obtained from postal ZIP codes provided by parents and matched with data from the American Community Survey (United States Census Bureau 2006), predicted monolingual children's responses. Although parents of participants reported that their children had limited exposure to languages besides English (averaging 2.7% of their children's language input), children in more linguistically diverse neighbourhoods were relatively more likely to imitate actions performed by the Spanish speaker (an unfamiliar language to the participants).

15.2.2.3   Language Essentialism Tasks

In addition to studying children's preferences, several studies have examined children's thinking about language as a social category. Essentialism refers to the idea that people perceive members of a social category as sharing an immutable, innate essence (Gelman 2003). Ethnographic studies of adults demonstrate that language essentialism manifests in many ways (McIntosh 2005; Gal and Irvine 2019); for instance, in Kenya language can come to define the self, one's religion, and one's rights. Learning a different language is thus thought by some to imbue a person with the essence of the other language group.

In light of this theory, language attitude researchers have designed creative methods to test the development of language essentialism in children. Two prominent methods used to do this are the switched-at-birth task (Hirschfeld and Gelman 1997) and the grow-up task (Hirschfeld 1995, 1996). The switched-at-birth task tests children's thinking about the classic nature–nurture debate – will children grow up to be more like their biological parents or take on the characteristics of their environment? In one study employing this paradigm (Hirschfeld and Gelman 1997), children were told stories about two families:

One set of parents spoke English and the other set spoke Portuguese. Each family had a baby, but by accident the babies were switched at the hospital. Children were asked what language the babies would grow up to speak – the language of their birth parents or the language of their adoptive parents. Three-year-old children chose randomly between the two languages, but by age five children were more likely to choose the biological parents' language. These methods also highlight the early errors that children make in reasoning about language, as they sometimes make different judgements from older children and adults. The grow-up task asks children to consider what properties a child will have in the future, such as what language they will speak as an adult. In studies employing this paradigm (Kinzler and Dautel 2012; Dautel and Kinzler 2017), participants viewed trials with three people: one child and two adult targets. One adult shared the child's race but spoke a different language from the child; the other adult shared the child's language but was of a different race from the child. When asked which adult the target child would grow up to be, younger children were relatively more likely to select the language match (even if it required endorsing the possibility of the target child changing their race). Notably, White American five- to six-year-old children chose the language-match reliably more often than the race-match, whereas nine- to ten-year-old children chose the race-match. African American five- to six-year-old children responded similarly to the older White children and chose race as the more stable category, suggesting that children's thinking about language and race is informed by their social experiences.

Another key component of language essentialism is that it guides inferences about individuals based on their linguistic group membership. In another study by Hirschfeld and Gelman (1997), children had strong associations between language and race – children were more likely to map language onto race than music onto race. As with race, children also infer geographic background based on accent – they infer that speakers of the same accent are from the same place (Weatherhead et al. 2016), associate the strength of an accent with the speaker's distance from children's current location (Weatherhead et al. 2019), and categorise speakers' nationality based on their language or accent (Kinzler and DeJesus 2013a; DeJesus et al. 2018). Not only can language essentialism lead to the perception of category members as carrying a fundamental essence, it can also be used as a lay predictive tool to make inferences about judgements about people.

15.2.2.4 Language Attitudes: Familiarity versus Status

As described previously, preferences exhibited very early in development for a mother's voice or native accent simply indicate a preference for the familiar. As infants and young children are exposed to a world of language attitudes and stereotypes, they start to demonstrate their knowledge (and even endorsement) of these attitudes. Children are especially attuned to status cues, and a preference for status often trumps a preference for the familiar (Lambert et al. 1966; Day 1980; Dailey et al. 2005; Kinzler et al. 2012a). For example, in a

study conducted in South Africa, native Xhosa-speaking children preferred English speakers (a language perceived as high status) over Xhosa speakers, although they preferred Xhosa to an unfamiliar language (French; Kinzler et al. 2012a).

Though much of this research focuses on native versus foreign accents, a few studies have examined children's perceptions of different regional dialects. Studies with toddlers suggest that children's ability to differentiate between accents increases along with their vocabularies (van Heugten et al. 2015), while other studies have observed difficulties in children's ability to differentiate between two accents or dialects within their native language (Girard et al. 2008; Floccia et al. 2009; Creel 2018). Indeed, their performance in such tasks does not reach adult-like performance until adolescence or beyond (Jones et al. 2017; McCullough et al. 2019a; 2019b). Nonetheless, children could still have access to some linguistic stereotypes early on. Even if they are not completely accurate in identifying where a specific dialect is spoken, their preferences could be evident in their early social judgements of other people and become more specific or robust as children get older (Nesdale and Rooney 1996). For example, a common linguistic stereotype in the United States is that people from the North are stereotyped as smart, whereas people from the South are stereotyped as nice. Similar stereotypes are present in other communities (including e.g. stereotypes regarding Received Pronunciation vs. Cockney and other accents in the United Kingdom, and standard vs. Northeastern Mandarin dialects in China) and fall along the dimensions of warmth and competence – people that are perceived as high in warmth are often perceived as low in competence, and vice versa (Giles and Billings 2008; Fuertes et al. 2012; Yang 2014; see also Chapter 1 for a discussion of the dimensions of language attitudes). By age five, children in the Northern United States demonstrate a preference for local speakers, and by age nine, children in both the Northern and Southern United States demonstrate evidence of the stereotypes associated with stigmatised regional accents, as described in the case study in Section 15.7 (Kinzler and DeJesus 2013b). Other dialects in the United States, such as African American English, are sometimes portrayed in derogatory terms, rather than as a dialect of American English or as a feature of children's social identity (Pearson et al. 2013). These findings highlight complex status relationships, even within a single language.

15.3   Research Planning and Design

Studies of the development of language attitudes include many choices and considerations for researchers, including how to recruit participants, which varieties to study, how to find or create high-quality stimuli, how to ensure a quiet-enough testing environment to hear the stimuli, how to account for the potential impact of the demographic background of the researchers conducting the study (including their linguistic background), and how to analyse the

resulting data. Suggestions and strategies applicable for participants of all ages are covered in other chapters of this volume, including the matched-guise technique (see Chapter 12) and the verbal-guise technique (Chapter 13).

For many of these considerations, decisions should follow from the research question itself. For example, a study of children's perceptions of people who are familiar compared to people from an unfamiliar foreign culture would require different audio stimuli from a study on children's perceptions of status within their local community. Experimenters may be able to capitalise on existing sets of audio stimuli such as the TIMIT *Acoustic–Phonetic Continuous Speech Corpus* (Fisher et al. 1986), the *Speech Accent Archive* (Weinberger and Kunath 2011) or materials shared on open science platforms (e.g. Ziegler et al. 2019). Alternatively, experimenters may need to create their own stimuli depending on the specific research question. Importantly, stimuli need to be child-friendly in content. Visual aids, such as photographs or video clips, are also helpful to keep children engaged (especially through longer tasks) and may be necessary when testing infants or to convey behavioural information (such as eating or object demonstrations). Depending on the research question, stimuli that include children (rather than adults) may be considered more ecologically valid, such as studies that ask children to provide friendship preferences (Kinzler et al. 2009), but these stimuli may be more difficult to obtain. These decisions should focus on how best to answer the core research question or how to test between competing hypotheses.

Once these decisions are made, experimenters must submit a proposal of their experiment to the Institutional Review Board (IRB) at their institution to ensure that the experiment will be carried out within established ethical guidelines. With regard to ethics, one primary consideration in any experiment is to ensure that parents provide informed consent for their children to participate and that children provide verbal assent. IRBs may also have guidelines for the age at which children must provide written assent, which may vary across institutions. In some contexts, IRBs may offer a possibility of opt-out consent for parents rather than opt-in or waivers of consent, depending on the circumstances of the study. Once the experiment is approved by the institution, the experimenter can recruit and test participants. Researchers generally rely on recruiting families into a lab setting (through physical and online advertising), in public spaces such as museums and parks, or through schools or daycares. IRBs also review these advertisements and may have guidelines for securely storing data that vary by institution or data type (e.g. videos of participants are considered identifiable data, and therefore are deemed more sensitive than de-identified responses in a spreadsheet).

For many practical considerations, changes in technology undoubtedly alter the landscape of creating and presenting stimuli, such as recent efforts to recruit and conduct studies with children online (Tran et al. 2017; Manning et al. 2020; Rhodes et al. 2020). The best equipment available ten years ago differs radically in quality and price from the equipment available today, and the equipment

available today will likely be very different from the equipment or procedures that will be available ten years from now. Consequently, this section focuses instead on a more evergreen consideration that extends across research questions: How to assess participants' language experiences and environments.

Researchers may wish to consider whether a variety is familiar to participants or the extent to which children's language exposure is related to their language attitudes. Demographic information about participants also provides a better understanding for readers of resulting papers of the sociocultural context being studied. A given child's experience with different languages is measured in many different ways and is a key consideration in studies of children's early language attitudes. In many studies, parents are asked to report how often they estimate their children hear different languages and at what age children were exposed to each language (Kinzler et al. 2009; Kinzler and DeJesus 2013a; Liberman et al. 2016, 2017c). For studies designed to test bilingual children's language attitudes, parents are asked to report more detailed information about their children's proficiency in each language and where children tend to speak each language, such as at home, at school, and with peers (Dautel and Kinzler 2017; DeJesus et al. 2017, 2018; Arredondo and Gelman 2019), or to categorise their child's language experience, with options such as monolingual, exposure, bilingual, or multilingual (see the supplemental materials of Fan et al. 2015 for category definitions).

In addition to parental reports, some studies measure other aspects of children's language environments, such as children's vocabulary in each language using standardised measures (Arredondo et al. 2019b). In a study of language exposure during infancy, the Language Environment Analysis recording system (LENA) was used to create full-day recordings of children's language input at home and compare data from those recordings to the proportion of exposure reported by parents (Orena et al. 2019). This study demonstrated the reliability of parental reports and highlighted important differences in input that children can experience (e.g. the absolute amount of input) even when they hear a language for a similar proportion of their days. Rich linguistic data is often available through public datasets, including the United States Census and the American Community Survey, and can be collected from participants using a simple metric, such as home ZIP code (Howard et al. 2014; Atagi and Sandhofer 2019). This measure is easy to collect, does not add cost to the project, and may be less susceptible to social desirability bias or estimation error than a parent-report measure. As this measure aggregates at the group level, it may be best when considering general community exposure (e.g. outside of the home, what access might a child have to linguistic diversity) as a potential influence on children's attitudes. This measure does not provide specific details about children's language environments and could not assess how much of each language an individual child actually hears or how individual children may be socialised (e.g. by parents and peers) to hold specific attitudes. (For further details regarding the intersection of research design and data analysis, see also Chapter 12.)

Historically, researchers in psychology (including developmental scientists) have relied on small samples, often resulting in underpowered studies in which the sample is too small to detect an effect if one exists or statistically significant results do not reflect true effects (Button et al. 2013). In recent years, failures to replicate the findings of prior studies (Open Science Collaboration 2015) have led researchers to think more critically about ways to increase and diversify their samples. To do this, researchers may consider expanding their recruiting strategies to test larger populations, including capitalising on virtual platforms. These replication failures have also resulted in a push towards more open science (e.g. pre-registering hypotheses before collecting data, or making data publicly available) as well as efforts for collaborative replications (e.g. the ManyBabies project; ManyBabies Consortium 2020). In their pursuit to study the young mind, researchers will benefit from embracing developmental research as a field with ever-evolving standards and best practices.

15.4   Data Analysis and Interpretation

Data analysis should follow from the research question(s) and study design. Because infants and children are difficult to recruit, repeated- and mixed-measures designs are often favoured to collect more data from each participant or to understand nuanced interactions (e.g. correspondence between multiple tasks or measures provided by parents and children). However, there are also key limits: It would not be advisable to include so many trials that a participant becomes fatigued. The exact number varies by age, trial length, and trial difficulty: The younger the child and the longer or more difficult the trials, the fewer trials are recommended. Task length may also be constrained by the testing site: Families may not wish to complete a long task in a museum setting, where other fun activities compete for their attention, and schools may not permit researchers to take children out of the classroom for extended periods of time.

In studies that measure continuous outcomes (e.g. mean differences in infant looking time), researchers may use an array of tests that depend on the number and type of predictors or groups involved. In studies with only two groups (e.g. monolingual and bilingual children), researchers may use a t-test to determine the mean difference in looking time between both groups. For studies with more than two groups (e.g. monolingual, bilingual, and multilingual children), researchers typically use an analysis of variance (ANOVA) for analyses involving categorical predictors (as above), or a regression model for analyses involving continuous predictors (e.g. differences in mean looking time based on a child's age).

In studies that measure categorical outcomes (e.g. which of two toys an infant reached for or which of two speakers a child selected), multiple methods are similarly available. In studies with just one trial, selections can be compared using a binomial test – did the infant select the English speaker's toy more often than the French speaker's toy than would be predicted by chance? In studies with

multiple trials, many studies add up the number of times a participant made a particular choice (e.g. English speaker selections) and compare that number to chance using a one-sample t-test. To assess the factors that might influence those choices, a regression analysis can be performed on the number of selections children made (e.g. using a Poisson regression to model count data) or on participants' choice between two options (e.g. using a binomial logistic regression). Predictors can be entered into the models to examine the extent to which both categorical (such as language category) and continuous variables (such as age in months or neighbourhood linguistic diversity) are associated with participants' selections. Importantly, for all studies, it is recommended that researchers visualise and graph their data to better understand the distribution of responses.

15.5   Further Important Considerations

Extant work on language attitudes among children relies on participants' explicit responses. The research reviewed thus far, as well as related findings with adults (Gluszek and Dovidio 2010; Rakić et al. 2011), reveals that people can feel comfortable explicitly expressing biased accent attitudes (including children in the presence of their caregiver). Yet, in some situations, explicit and implicit beliefs can diverge, especially in contexts that give rise to concerns about social pressure or desirability (Rutland et al. 2005, see also Chapter 1). Research on implicit language attitudes may be an additional measure of beliefs about language attitudes outside of explicit awareness. The Implicit Association Test (IAT; e.g. with children, Baron and Banaji 2006; Dunham et al. 2008; see also Chapter 16) and mouse-tracking methods (Wojnowicz et al. 2009; Incera and McLennan 2016) are two popular ways to measure implicit attitudes. The IAT tests the strength of subconscious associations of different mental representations (e.g. the association of race with positively or negatively valenced words). Mouse-tracking examines the reaction time and trajectory of participants' responses. For example, when assigning the word *smart* to either of two targets, mouse-tracking allows researchers to track not only participants' choices, but also the trajectory of the cursor as it veers towards (or away from) a target.

15.6   New or Emerging Trends

Over the years, researchers have developed new and creative ways to understand the human psyche. The more is uncovered about language development in infants and children, the more this can inform language attitudes research. The accessibility of new technologies and tools has profoundly expanded the scope of research on language attitudes, and specifically the neural underpinnings of the phenomena described. For a better understanding of the

neural mechanisms involved in the cognitive process, one might use electroencephalography (EEG) or functional near-infrared spectroscopy (fNIRS) with infants and children, allowing researchers to understand how the brain responds to different language stimuli (Rogers et al. 1977; Cristia et al. 2014; Arredondo et al. 2019a, 2019b). These methods provide compelling evidence of important brain regions and networks involved in the development of language attitudes.

Increased access to demographic information has allowed for a more comprehensive understanding of language attitudes. Having child participants self-report (or have their parents report on their behalf) information about their native language proficiency, multilingual status, and exposure to different languages, is useful to account for or unpack mediators and moderators in language attitudes research. In the United States, information derived from postal ZIP codes allows researchers to examine whether unique neighbourhood characteristics influence language attitudes. For example, researchers can assess how language attitudes are shaped by participants' relative income (as compared to the average of their neighbourhood) as well as the racial and linguistic heterogeneity of their neighbourhood based on large-scale publicly available census data (Howard et al. 2014; Atagi and Sandhofer 2019).

Finally, a key consideration is what research on language attitudes can contribute to broader conversations about diversity in sampling in the social and behavioural sciences. In recent years, a greater emphasis has been placed on moving past samples from Western, Educated, Industrialised, Rich, and Developed (WEIRD) countries, which are persistent for example in psychological research and research published by top developmental psychology journals (Henrich et al. 2010; Nielsen et al. 2017). Reaching even more diverse communities can offer new perspectives and a nuanced approach to studying the development of language attitudes. Researchers who study language attitudes may have unique expertise in recruiting participants and collaborating with community partners from diverse backgrounds that would be informative to other fields of study. With these methods and perspectives in mind, the field of language attitudes lends itself to an exciting future in understanding the development of human social cognition.

15.7 Case Study: Attitudes towards Northern and Southern Accents of American English

To illustrate the methods described so far, we present a case study about young children's attitudes towards different accents in the United States (Kinzler and DeJesus 2013b). In particular, we were interested in the developmental pathway from a preference for the familiar to more specific accent stereotypes. Children were introduced to pairs of people on a laptop computer, one who spoke in a Northern accent (recorded in the Chicago area) and one who spoke in a Southern accent (recorded in Tennessee, near the Alabama border).

The study was conducted in person, primarily at children's schools (consent documents were distributed in school by classroom teachers and researchers tested only the children whose parents returned signed consent forms). Pairs for each trial were created using presentation slides showing two faces; faces were assigned to voices by the experimenter playing an audio clip while pointing to the face. In each pair, speakers spoke the same child-friendly phrase (e.g. 'at school, children learn to read and write') to ensure that children could not make differential assessments of the speakers' warmth or competence based on the statements' content. Children were asked which person they would select as a potential friend (a broad measure of children's social attitudes) and assessments of more specific sociolinguistic judgements – who is nicer, who is smarter, who is in charge, who lives 'around here', and who is American. Children were tested in Chicago ($n = 48$) and Tennessee ($n = 48$) to examine whether they developed different sociolinguistic attitudes across communities. They could positively judge members of their own group on all dimensions, whereas if they had knowledge of cultural stereotypes, they might rate the Northern speakers as smarter and Southern speakers as nicer across both communities. We also recruited two age groups of children (five- and six-year-olds and nine- and ten-year-olds in each location, creating four groups with twenty-four children each) to examine age differences in children's thinking about different regional accents.

Younger children in Chicago picked Northern-accented speakers as friends and rated them as 'nicer' and 'from around here'. Younger children in Tennessee did not differentiate between the two accents. However, by age nine, children in both communities were aware of the 'North = smart, South = nice' stereotype. Older children were more likely to select the Northern-accented speakers when asked 'who is smarter' and 'who is in charge' (compared to the Southern-accented speaker), but were more likely to select the Southern-accented speaker when asked 'who is nicer'. Children in Chicago were also more likely to select the Northern-accented speaker as 'from around here' (compared to the Southern-accented speaker), whereas children in Tennessee did not choose one type of speaker significantly more than the other.

Several key questions remain from these findings. Most notably, it is unclear how children learn these stereotypes. The media provides one potential source of accent attitudes; however, we did not have specific data on the amount of media with different accents children regularly heard. Moreover, children's experience with different accents and dialects may shape their attitudes. In one recent study, children's locality judgements were related to their accent attitudes, suggesting that children's understanding of the geography of different accents contributes to their attitudes towards particular accents (McCullough et al. 2019b). Children in Tennessee may hear a broader range of American accents than children in Chicago. This may seem counterintuitive – Chicago is a diverse city with people from a variety of geographic backgrounds. Nonetheless, among native speakers

of English, children may hear Northern accents most of the time, and these accents are also more prominent in the media (Lippi-Green 1997). Children in Tennessee have access to similar media, but also hear Southern-accented people in their community. Additional research is needed to understand the scope of influences on children's language-based attitudes and stereotypes.

Suggested further readings

Aslin (2007); Imuta and Spence (2020); Kinzler (2020); Liberman et al. (2017a); Lippi-Green (1997)

16   The Implicit Association Test Paradigm

Laura Rosseel

16.1   Introduction

The Implicit Association Test (IAT) is a reaction time-based categorisation task that aims to capture to what extent participants automatically associate an attitude object and a certain type of evaluation. The IAT was introduced some twenty years ago as a novel attitude measure in social psychology (Greenwald et al. 1998). In this field, the method has been used to study a wide range of topics such as racial bias (e.g. Greenwald et al. 1998), advertising and marketing (Maison et al. 2004; Gregg and Klymowsky 2013), self-esteem (e.g. McKay et al. 2010), gender bias (e.g. Robinson et al. 2005; Steele and Ambady 2006), and addiction (e.g. Houben and Wiers 2006; Lindgren et al. 2013). More recently the IAT paradigm has gained ground as a measure for language attitudes in the social and behavioural sciences. Linguists have employed the IAT to study the evaluation of language varieties and variants (e.g. Babel 2010; Redinger 2010; Pantos and Perkins 2012; Lee 2015; Loudermilk 2015; Leinonen 2016; Álvarez-Mosquera 2017; McKenzie and Carrie 2018), but also to investigate their indexicality and social meanings (Campbell-Kibler 2012, 2013b; Llamas et al. 2016; Hilton et al. 2016; Nilsson et al. 2019). The method has even been applied to measure salience (Leinonen 2016).

16.1.1   Implicitness

It is important to briefly consider the type of psychological construct measured with the IAT. The method is often said to capture implicit attitudes, but this concept of implicitness and the use of the term is rather controversial – at least in social psychology (see Chapter 1). *Implicit* is both used to describe a type of method (those that do not require introspection), as well as the construct to be measured (attitudes that fall outside a person's control and of which they are unaware). Yet, some authors prefer to use the term *indirect* to refer to methods that require no introspection. Others, like Gawronski and De Houwer (2014: 284) specify the term *implicit measure* by reserving it for cases where 'the to-be-measured psychological attribute influences participants' responses on the task in an automatic fashion', whereby automatic is defined as 'unintentional, resource-independent, unconscious, or uncontrollable'. For a more thorough, yet accessible discussion of the interpretation of the term *implicit* in social psychological

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attitudes research, refer to Pantos (2019). A further complication is how these concepts relate to the interpretations of different types of language attitudes (e.g. overt vs. covert attitudes, see Chapter 1) and language attitudes measures in the linguistic tradition. This is a pressing question that deserves further attention in future work, but is beyond the scope of this chapter. Interesting discussions in this context can be found in work like Adams (2019), Pantos (2019), Pharao and Kristiansen (2019), and Rosseel and Grondelaers (2019). In particular, the suggestion raised in Campbell-Kibler (2012) to further look into the similarities between the psychological concept of implicit attitudes and the sociolinguistic construct of indexical meanings as well as the underlying theoretical models seems highly relevant. Notwithstanding this lack of research integrating sociolinguistic and social psychological theorising on attitudes, it may be clear that the IAT fits well in the collection of chapters on indirect language attitudes methods in the sense that participants do not self-report their language attitudes during an IAT.

In this chapter, the term *implicit* is used for both the type of attitudes measured by the IAT as well as the method itself, as is customary in the research tradition the IAT paradigm emerged from, and to avoid confusion with the linguistic definition of indirect language attitudes measures.

16.1.2   How the IAT Works

The IAT measures the relative association between an attitude object and an evaluative dimension (for a discussion of the main evaluative dimensions of language attitudes, see Chapter 1). The attitude object is referred to as the *(target) category*, while the evaluation is termed the *attribute (category)*. So in an experiment that aims to measure language attitudes towards a linguistic phenomenon (e.g. language varieties or a linguistic variable) in terms of the status dimension, the linguistic phenomenon would be the target category and the status dimension the attribute. Note that both target and attribute need to be binary in an IAT. In this example, the linguistic phenomenon could consist of two language varieties or two different realisations of a linguistic variable and the attribute category would be 'status' versus 'no status'. This means that the attitudes measured using the IAT are always relative in nature. The implications of this binary structure are discussed in Section 16.3.

A standard IAT consists of a series of trials. These trials are categorisation tasks in which participants sort four types of stimuli representing the two target categories and the two attribute categories. These stimuli have to be highly representative of their respective category, so they are easily categorisable. For example, in a study on the relative status of two language varieties, variety A and variety B, brief sound clips representing each variety could function as target stimuli and adjectives expressing status or lack thereof (e.g. *highly educated, important, rich, uneducated, irrelevant, poor*) as attribute stimuli. To sort stimuli
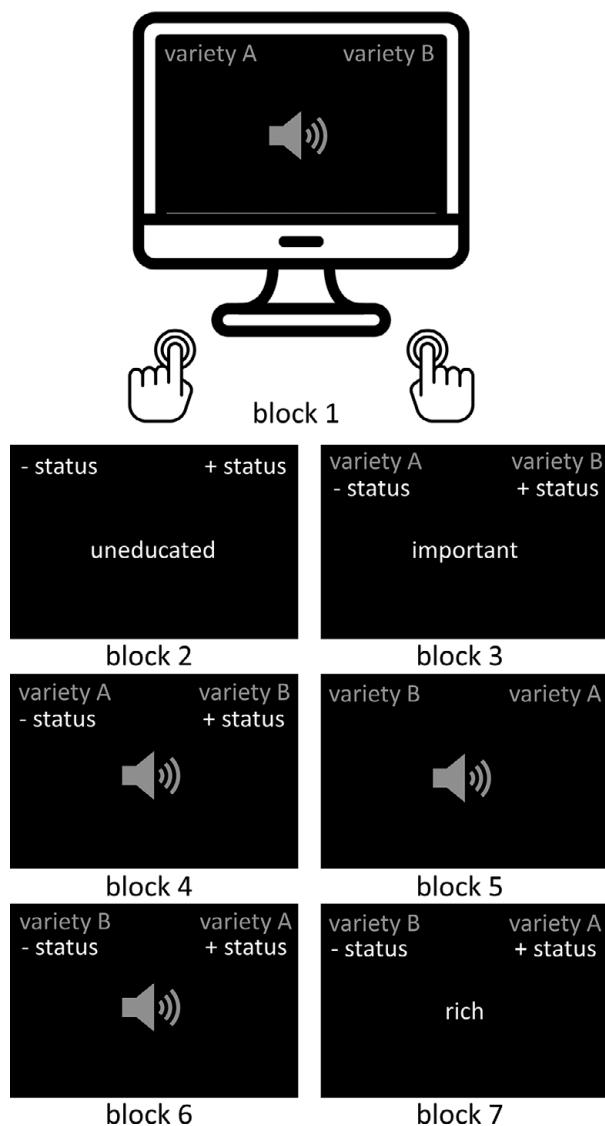
Figure 16.1 *Screenshots with an example of a trial from each block of an IAT*

into their respective categories, participants have two response keys at their disposal.

In each trial, one stimulus has to be categorised using the two response keys. Examples of trials can be found in Figure 16.1. The stimulus appears in the middle of the screen after which the participant is asked to assign it to the correct category as quickly as they can, but at the same time as accurately as possible. Figure 16.1 also shows that in addition to the stimulus, there are two labels in the top corners of the screen. These labels indicate the meaning of the response keys,

Table 16.1 *Schematic overview of the structure of an IAT measuring status associations with two language varieties*

Block number	Type of block	Left response key	Right response key	Typical number of trials
1	Practice	variety A	variety B	20
2	Practice	-status	+status	20
3	Experimental	variety A -status	variety B +status	20
4	Experimental	variety A -status	variety B +status	40
5	Practice	variety B	variety A	40
6	Experimental	variety B -status	variety A +status	20
7	Experimental	variety B -status	variety A +status	40

so the participant does not need to memorise how the target and/or attribute categories are mapped onto the response keys.

The trials of an IAT are divided into seven blocks that differ in the types of stimuli that have to be categorised and in the mappings of the categories onto the response keys. This structure is summarised in Table 16.1 that builds on the example of an experiment measuring status associations with variety A and B. Three of the seven blocks (blocks 1, 2, and 5) are practice blocks and aim to familiarise participants with the stimuli and categorisation task. The four remaining blocks (3, 4, 6, and 7) are experimental blocks that serve as the basis to detect the IAT effect.

In the first practice block (i.e. block 1), participants practise categorising target stimuli. In the example in Figure 16.1, these consist of short sound samples representing variety A and B. The response keys in these blocks correspond to one target category each. Variety A is mapped onto the left key, variety B onto the right key (see Table 16.1 and Figure 16.1). This block is followed by another practice block (i.e. block 2), but this time the attribute stimuli are practised and the response keys now correspond to the two attribute categories (i.e. -status for the left key and +status for the right key in the example in Table 16.1). These practice blocks usually consist of twenty trials each.

Blocks 3 and 4 are the first set of experimental blocks. They combine the two tasks practised in blocks 1 and 2. Respondents now have to categorise a mix of target and attribute stimuli. However, now there are four types of stimuli for only two response keys. This means that two categories will be mapped onto the same response key. In the example, the left key is used for either stimuli representing variety A or stimuli representing -status and the right key for stimuli representing variety B or stimuli representing +status. Note that for each type of stimulus only

the relevant category applies: When participants get a target stimulus, only the target categories matter and the only significance of the keys is 'variety A' or 'variety B', and likewise when an attribute stimulus is presented. Together, these experimental blocks contain around sixty trials.

After this first set of combined blocks, participants go back to a practice block (i.e. block 5) with target discrimination. The reason why they have another practice round is that the mapping of categories onto the response keys has been swapped around: The left key now stands for variety B, while the right key is used to categorise stimuli representing variety A. It is recommended to have around forty trials in this practice block.

The final two blocks (i.e. blocks 6 and 7) are again combined blocks that require participants to categorise a mix of semi-randomly presented target and attribute stimuli. In these two blocks, the response key mappings from block 5 are retained, while the mappings for the attribute categories do not change throughout the experiment. This results in a reverse key mapping compared to blocks 3 and 4. So in the example the key mappings in the final two blocks are 'variety B / -status' for the left key and 'variety A / +status' for the right key.

This reversed response key mapping between the two sets of experimental blocks is crucial for the IAT. Participants will find it easier to categorise stimuli when the categories mapped onto the response keys are congruent with their attitudes. By contrast, they will find it more difficult when the category mapping is incongruent with their own attitudes. For example for the IAT design in Table 16.1, a participant who associates variety A more strongly with status than variety B will find it easier to categorise stimuli in the first set of experimental blocks (i.e. blocks 3 and 4) than in the second set (i.e. blocks 6 and 7), because in the former, variety A and +status are mapped onto the same response key. This difference in ease is reflected in a difference in reaction times: Respondents will be faster to categorise stimuli in blocks where the response key mappings are congruent with their attitudes, but slower when their attitudes are incongruent with the response key mappings. Hence, through a comparison of reaction times between the two sets of experimental blocks, the IAT provides information on which target and attribute categories participants associate more strongly.

16.2   Research Planning and Design

This section discusses stimulus selection, stimulus presentation and error feedback, programming possibilities, the practical circumstances for conducting an IAT experiment and ethical considerations.

Stimulus selection is a crucial aspect of designing a successful IAT experiment. A first point in that respect is the number of stimuli typically used. There is a lot of variability to be found in the literature on this point. Often, five to six

stimuli per category are included, for a total of twenty to twenty-four stimuli per experiment. Nosek et al. (2005), however, showed that as long as more than two stimuli are used, the results are not affected significantly by the number of stimuli. What does matter, though, is the quality of the stimuli. It is important to ensure the stimuli are representative of their category: They have to be good exemplars of whatever attitude object they represent as they have a considerable influence on the outcome of the experiment. Mitchell et al. (2003), for instance, found that racial attitudes (in this case attitudes towards dark- and light-skinned people) changed depending on whether the stimulus set contained popular and well-liked black people for the category of dark-skinned people, and unpopular and disliked white people for the category of light-skinned people compared to an experiment where it was the other way around. Another reason why the stimuli have to be chosen carefully is that they need to be easy to categorise for participants, so they can do it quickly. This helps to ensure that automatic associations are measured with the IAT, which is also why the stimuli have to be as short as possible. The same care has to be taken when choosing the labels for the target and attribute categories that are displayed in the top corners of the screen to help participants remember the meaning of the response keys (see Figure 16.1). Multiple studies have shown that the choice of labels is just as decisive for the outcome of the experiment as the choice of the stimuli (e.g. De Houwer 2001). The fact that the construal of the attitude object through its naming is an important factor for attitudes is also well-known in linguistic attitudes research where studies have pointed to the different outcomes of experiments measuring language attitudes based on variety labels versus sound clips (e.g. Bishop et al. 2005; Coupland and Bishop 2007; Kristiansen 2010b; Grondelaers and Kristiansen 2013).

As regards stimulus presentation, one has to decide on the intertrial interval. There is quite some variation between studies, with most studies leaving around 250 ms between a participant's response and the presentation of the next stimulus (Teige-Mocigemba et al. 2010). When participants miscategorise a stimulus, they receive error feedback usually in the form of a red cross in the middle of the screen. They then have to correct themselves by pressing the correct key before moving on to the next trial. Note that not all versions of the IAT use error feedback (see Section 16.3).

The next point relates to programming an IAT experiment. The procedure that gives the most freedom to control and adjust all aspects of an experiment is to programme it from scratch in whatever programming language one is versed in. There are alternatives however: One option is to use open source software like Psychopy (Peirce et al. 2019) which gives a reasonable amount of freedom to tailor the experiment to one's needs. Given the popularity of the IAT paradigm, it is also integrated in commercial software like E-prime (Psychology Software Tools 2016), which is often user-friendly and requires little programming skills, but offers less freedom to tailor certain aspects of the experiment.

Another practical issue to consider is the circumstances under which the IAT is taken. IAT experiments have been conducted both in lab conditions and online. The former option is perhaps more common and has the advantage of optimal control over the experimental setting, which is desirable for reaction time-based tests where the slightest distraction may impact participants' perform-ance. However, it is time-consuming and requires considerable resources to conduct lab-based research especially when large samples of respondents are needed. Online versions of the IAT allow the researcher to cost-efficiently collect more data in a shorter amount of time, and perhaps to reach participant groups that are harder to bring into the lab (Friese et al. 2007; Glashouwer et al. 2013). The pay-off is that the quality of the data may be less than desirable, as there is no control over the circumstances in which participants take the test. Sometimes respondents are asked whether they were interrupted at any point during the online IAT as a control question to filter out participants who were distracted. This trade-off between highly controlled experiments, and cost-effective and fast data collection is of course not unique to the IAT paradigm, and researchers should weigh up what the best solution is for their study. More generally, it should be noted that the characteristics of a standard IAT design reported above are not set in stone: Considerable variation can be found in the implementation of various design features.

Finally, as with all experiments involving human participants, it is crucial to follow ethical guidelines carefully in the context of an IAT study. Researchers must make sure to obtain informed consent from respondents and provide adequate debriefing. It is also strongly recommended to seek institutional ethics clearance before embarking on an IAT study (see also Project Implicit 2011 for further ethical considerations regarding the IAT).

16.3   Strengths and Limitations

16.3.1   Strengths

16.3.1.1   Psychometric Qualities

The IAT paradigm has been used extensively in social psychological research and there are multiple reasons why the method has proven to be appealing to many scientists. A first of those is its psychometric qualities, which refers to the method's validity and reliability. A valid method is one that measures what it set out to measure. For an implicit attitude measure to be valid, the effects it captures should reflect variations in the targeted attitudes. Reliability refers to a method's consistency: A reliable method should produce the same results under the same circumstances. The validity and reliability of a method depend on the specifics of a study (which attitudes are measured and what procedural choices have been made). Given that the IAT is used to assess a wide variety of attitudes and that there is considerable variation in its procedural

implementation, one has to be careful with generalisations about its psychometric qualities (Lane et al. 2007). However, considering evidence from a large range of studies, the IAT is deemed to have good psychometric qualities (Gawronski et al. 2011). Generally, psychologists assume that the IAT effects are caused by the attitudes the measure tries to capture (De Houwer et al. 2009). Hence, it is seen as a valid measure. Reliability for the IAT in its traditional form is also satisfactory (internal consistency is usually situated between .70 and .90, see Gawronski and Hahn 2019).

16.3.1.2 Flexibility

In addition to good psychometric properties, the IAT paradigm is also popular for its flexibility with regard to stimulus modality and the types of evaluations it can measure. The IAT allows for any stimulus modality, for example written (nonsense) words, pictures, or sounds (e.g. Vande Kamp 2002; Lane et al. 2007). Especially the latter option makes it an appealing method for researchers interested in measuring language attitudes. Although many psychological studies limit the attribute category to valence, the IAT allows any type of evaluation to feature as the attribute concept, as long as confounds with the target concept are avoided. This is again particularly interesting for researchers of language attitudes who are typically interested in a more diverse range of attitudinal dimensions such as status and solidarity (see Chapter 1). Note though that only one attitudinal dimension can be included per IAT experiment.

The flexibility on the level of the stimuli has its bounds, however. Given that speed is often cited as an important component of automaticity, a considerable restriction is that the stimuli need to be as short as possible to maintain the implicit nature of the method: The longer the stimuli, the more time participants have to process them and the less automatic their reactions become. Typically, vocal stimuli used in linguistic IAT studies are short words of up to two syllables (ca. 600 ms, e.g. Rosseel et al. 2018, but see Pantos and Perkins 2012 for auditory stimuli of up to twelve words, ca. twenty-four syllables). This limits the type of linguistic phenomena that can be studied using the IAT. It will, for instance, be hard to include stimuli that contain certain syntactic or prosodic features that require stimuli to be longer than just a few syllables. The length restriction on the stimuli in the IAT comes with another consideration: It leaves the stimuli completely decontextualised. While this may present opportunities to study the social meaning of linguistic features in isolation in a carefully controlled experimental setting, it comes with the disadvantage that it is hard to study language attitudes in a more ecologically valid way. It also makes it challenging to use the method to tap into the mediation of attitudes by situational, social, and linguistic contextual information. Although previous studies have attempted to contextualise the IAT (e.g. Rosseel et al. 2019), it seems anything but straightforward to do so.

16.3.1.3 Faking

A rather obvious advantage of the IAT paradigm is that it allows to measure implicit attitudes. It was explained above that, as an implicit attitude measure, the responses in the IAT's categorisation tasks should be influenced by participants' attitudes in an unintentional way (Gawronski and De Houwer 2014: 284). For this to be true, participants should not be able to influence the outcome of the IAT intentionally. Consequently, a considerable number of studies have looked into the extent to which respondents can 'fake' an IAT. Although it is not impossible, the IAT has been shown to be rather fake-proof (Teige-Mocigemba et al. 2010). If faking is successful, it is usually only the case in participants with prior experience with the method (Steffens 2004; Fiedler and Bluemke 2005) or in respondents to whom it has been explained how they can fake it (Fiedler and Bluemke 2005). Hence, it is advisable not to include participants who have prior familiarity with the method in an IAT study. Another way to avoid strategic control of the responses is to opt for an alternative but closely related method to the IAT, the Implicit Association Procedure (see Schnabel et al. 2006). This method relies on the use of a joystick to categorise stimuli rather than on response keys and is believed to be more immune to faking (Teige-Mocigemba et al. 2010).

16.3.2 Limitations

16.3.2.1 Labelling Target and Attribute Categories

Certain features of the IAT can make its use challenging or unsuitable for certain purposes. A first disadvantage is the method's requirement to label the target and attribute categories. As explained above, these labels are used to communicate the mapping of the target and attribute categories onto the response keys (see Figure 16.1). Choosing a suitable label may prove difficult, for example, in a study that aims to measure the social meaning of a linguistic feature for which laypeople have no terminology. And if a label is available, it may be unclear what precisely non-linguists mean when using that label and whether they all mean the same. This is a particularly important issue, given that the choice of how to label an attitude object may impact the attitudes measured, as discussed in Section 16.2. Hence, careful pretesting and preparatory research in the speech community under study is primordial. If the label is chosen well, it may help to ensure that all participants identify the linguistic phenomenon under study as it was intended by the researcher. As such, the use of labelling in the IAT circumvents an issue that, for instance, the matched-guise technique is sometimes criticised for (Garrett 2010; see also Chapter 12). Note also that there may be creative solutions in cases where no obvious label is available, such as the labelling of supposed speakers (e.g. person A vs. person B, or John vs. Peter), or by asking the participant to provide their own labels.

16.3.2.2   Binary Structure

A second potential limitation of the IAT is its binary structure. As explained in Section 16.2, this requires researchers to work with binary attitude objects and evaluative dimensions. This can of course be inconvenient for studies focusing on single attitude objects (e.g. a single language variety) or on more than two attitude objects (see Section 16.6 for an example). Yet, for both situations, solutions are available. Alternative versions of the IAT have been developed to accommodate for single attitude objects (Single Category IAT, see Karpinski and Steinman 2006; or Single Target IAT, see Wigboldus et al. 2004) or a single attribute category (Single Attribute IAT, see Penke et al. 2006). In these types of IATs, it is advisable to use target and attribute stimuli of the same modality in order to avoid recoding (Gawronski et al. 2011). What could happen is that participants use the modality of the stimulus as the criterion to categorise it rather that the intended target and attribute concepts. In that case the IAT is not measuring what it intended to measure anymore. However, using target and attribute stimuli of the same modality may pose problems in the case of auditory linguistic stimuli. An example would be a Single Target IAT used to measure positive/negative attitudes towards a certain accent represented by auditory stimuli. To avoid recoding in this example, the attribute stimuli would also have to be auditory. The question then is which accent to use for the attribute stimuli. If the same accent is used for the target and attribute stimuli, the distinction between the two is not clear enough anymore for the IAT to function properly. Yet, if another accent is used for the attribute stimuli, a confound would be introduced into the design. One could argue that a neutral accent can be used for the attribute stimuli, but it may obviously be questioned whether there is such a thing as a neutral accent.

A solution for studies that aim to measure attitudes towards more than two attitude objects is to develop multiple IATs that each include a different pairing of the attitude objects. Such multiplication of the number of experiments is not always desirable: Although studies with successful within-subjects designs with multiple IATs have been reported, there is a risk of practice effects or fatigue in participants' performance (Fiedler and Bluemke 2005; Gawronski et al. 2011; Bar-Anan and Nosek 2014). Finally, note that the binary structure of the standard IAT entails that the method can only measure relative attitudes, never absolute ones. This should however not necessarily be regarded as a disadvantage. Language attitudes are inherently relative: The use of a linguistic feature is always judged in comparison to alternative features that could have been used in the same place. And if that is the case, the binary structure of the IAT forces the researcher to specify what the second component of the comparison is, hence allowing for a more controlled experimental design and enhanced validity.

16.3.2.3   Block Order Effects

A third problematic aspect of the IAT paradigm is also related to its structure: The method suffers from block order effects. It has been shown that the

IAT effect tends to be larger if the congruent experimental block (i.e. where the response key mappings align with the participant's attitudes) precedes the incongruent experimental block (Teige-Mocigemba et al. 2010). In many studies it is of course unknown in advance what a participant's attitudes will be and hence what the congruent block will be for them. One way of dealing with this order effect is to counterbalance block order between participants. Note that a disadvantage of this solution is that there will be more error variance in the results which may decrease the correlation with other attitudes measures (De Houwer et al. 2015). Alternatively, or additionally, the block order effect can be diminished by increasing the number of stimuli in block 5 from the traditional 20 to 40 (Nosek et al. 2005). This gives participants more time to get used to the swapped key mappings. Note that this solution has already been implemented in the IAT design as described in Section 16.1. A third way of tackling block order effects is to opt for alternative versions of the IAT designed to deal with this issue by getting rid of the block structure (e.g. the Single Block IAT, see Teige-Mocigemba et al. 2008; the Recoding Free IAT, see Rothermund et al. 2009).

16.3.2.4   Extra-Personal Associations

A final challenge associated with the IAT to be discussed here is the type of associations measured by the method. The standard IAT as described in Section 16.1 has been criticised for measuring extra-personal associations rather than personal ones (note that this distinction is debated, see Gawronski et al. 2008; De Houwer et al. 2009). These extra-personal associations refer to associations which are picked up because they are present in society, but which the individual may not endorse. For example, an IAT comparing vegetables to candy bars may return positive associations with the former even for participants who prefer candy bars to vegetables. The reason for this is that these participants live in a society where they are regularly told that vegetables are good for them and it is this knowledge the IAT taps into. To circumvent this problem, Olson and Fazio (2004) introduced the Personalised Implicit Association Test (P-IAT) as a new variant of the traditional IAT. The two main elements that set the P-IAT apart are the omission of error feedback after an incorrectly categorised stimulus and the use of personalised attribute labels (e.g. 'I like' vs. 'I don't like' instead of 'positive' vs. 'negative'). This version of the IAT is used in the case study presented in Section 16.6.

16.4   Data Analysis and Interpretation

Data recorded during the IAT, that is, response latencies and accuracy, are typically analysed using one of three different procedures that aim to compare participants' performance between the two sets of experimental blocks. In the traditional approach (Greenwald et al. 1998), extreme latencies are first

dealt with by recoding those that are too fast (i.e. <300 ms) to 300 ms and those that are too slow (i.e. >3,000 ms) to 3,000 ms. These are typically responses where participants accidentally pressed the response key too soon in anticipation (<300 ms) or were distracted (>3,000 ms). Next, reaction times are log-transformed and the difference is calculated between the mean reaction time in experimental blocks 7 and 4. A second approach is to use a scoring algorithm to calculate what is referred to as measure *D* (Greenwald et al. 2003). Although different versions of the scoring algorithm exist, the one recommended by Greenwald et al. (2003) is one that calculates the average of the difference between the mean reaction times of the two sets of experimental blocks (mean block 6 minus mean block 3, and mean block 7 minus mean block 4) divided by the inclusive standard deviation of each difference score. Note that before calculating the average difference, all trials are excluded that have reaction times over 10,000 ms. This is done to deal with the distribution of latency data, which often has misshapen tails. Furthermore, all participants with more than 10 per cent of their responses under 300 ms are removed from the data. These participants are likely responding too fast to properly classify the stimuli. Greenwald et al. (2003) present these exclusion criteria as a minimum and recommend considering further exclusions based on fast/slow responses and error rates in laboratory studies. For those using R statistical programming software to analyse their IAT data, the IAT package (Martin 2015) can be used to tidy up IAT output and calculate *D* scores. As an alternative to the traditional approach and the *D* score, some researchers use mathematical approaches like multinomial modelling to analyse IAT data (see Sherman et al. 2010 for a review).

When using the scoring algorithms described above, it is crucial to keep in mind that they present difference scores and that the IAT is a relative attitude measure of which the outcome cannot be interpreted in an absolute manner. The difference scores express the association between the four target and attribute categories relative to one another. Going back to the example IAT used in Section 16.1, one could never claim that 'participants feel variety B lacks status'. All one could deduce from a difference score in this case would be that participants perceive variety B as less strongly associated with status in comparison to variety A. No absolute claims could be made regarding the status of either variety. Likewise, a difference score of zero cannot be interpreted as indicative of a neutral attitude. For a further critical appraisal of the use of difference scores in the context of the IAT, see Teige-Mocigemba et al. (2010).

16.5   Further Important Considerations

Before turning to an example of a linguistic IAT study, this section briefly touches on two issues researchers should consider before embarking on

any IAT study. First, the IAT paradigm is not the most suited methodology for exploratory studies of language attitudes. The IAT's structure, with a predefined attitude object and evaluative dimension, lends itself better to testing specific hypotheses. It is important to remember that the standard IAT only allows the inclusion of a binary target object and just one evaluative dimension which also needs to be binary. Furthermore, practice effects and fatigue are risks that make repeated measures studies unappealing.

Second, it should not be underestimated that completing an IAT experiment is cognitively demanding for respondents. The computer-based task is rather complex and the test requires considerable concentration for a prolonged time. This means that it may not be suitable to use in all participant populations. However, to tackle this limitation, versions of the IAT have been developed that cater for specific respondent groups, like children as young as four years old (Cvencek et al. 2011; see also Chapter 15).

16.6   Case Study: Attitudes towards Language Variation in Belgian Dutch

To illustrate how the IAT paradigm can concretely be implemented in linguistic attitudes research, this section describes an experiment that was designed to study attitudes towards language variation in Belgian Dutch. The full study is reported in Rosseel et al. (2018). At the time this study was conducted, fairly little language attitudes research on Belgian Dutch had been carried out since the 1980s. Hence, the aim of the study was to contribute to painting a picture of the language attitudinal landscape in Flanders, the Dutch-speaking northern part of Belgium, and to a better understanding of processes of language variation and ongoing change there. The study also had a methodological objective, namely comparing the potential of the IAT paradigm with that of auditory affective priming as novel methods for measuring language attitudes (see also Chapter 20). In what follows, my focus is limited to the practical aspects of the IAT experiment. For a discussion of the study's larger descriptive and methodological objectives, I refer the reader to Rosseel et al. (2018).

The case study set out to measure attitudes towards three varieties of Belgian Dutch, Standard Belgian Dutch (SBD) and two varieties of Colloquial Belgian Dutch (CBD), Antwerp-accented CBD and West-Flemish-accented CBD, in participants native to Antwerp and West-Flanders. Based on previous work (e.g. Speelman et al. 2013), it was hypothesised that both groups of participants would prefer SBD over the outgroup variety. Furthermore, we expected participants from Antwerp to prefer their own regional variety over SBD, while the opposite was expected for West-Flemish respondents. Given that we had specific hypotheses regarding the attitudes towards the three varieties (see Section 16.5)

and that we were interested in automatic evaluations, the IAT paradigm was an appropriate methodological choice.

Data from 176 participants were included in the analyses. All participants were born and raised in Antwerp or West-Flanders and were still living there. In order to exclude the potential influence of age and social background on the outcome of the experiment, these factors were kept constant by opting for a sample of university students. The average age of participants was 20 (SD = 1.79), and 102 identified as male, while 74 identified as female.

In the study, we used a P-IAT to avoid measuring extra-personal associations (see Section 16.3.2.4). The target categories in the study were the three language varieties under study, namely Antwerp-accented CBD, West-Flemish-accented CBD, and SBD. Given that the P-IAT requires the attitude object to be binary, multiple P-IATs had to be designed to include all three varieties in the study (see Section 16.3.2.2). One P-IAT included the Antwerp variety compared to SBD, while the other P-IAT had the West-Flemish variety and SBD as its target categories. The target stimuli consisted of sound recordings of six individual disyllabic words (see Section 16.3.1.3). For every word a recording was made in each of the three varieties. The target stimuli were controlled for length (around 600 ms), frequency, familiarity, valence, and degree of colloquiality (for more details, see Rosseel et al. 2018). Note that because the stimuli are so short, the difference between the varieties is purely situated on the level of the accent. Because dialectal variation was not the focus of this study, lexical items were used that showed no variation on the level of the lexicon. The stimuli were produced by two native speakers who each provided stimuli in their respective native accent. Additionally, each speaker provided half of the SBD-accented stimuli. This practice resembles a combination of a matched- and verbal-guise design (see Chapters 12 and 13).

The labels used to refer to the varieties in the P-IAT (i.e. the labels in the top corners of the screen, see Figure 16.1) were Dutch translations of 'Antwerp accent', 'West-Flemish accent', and 'neutral accent'. Note that from a linguistic point of view, these may not be the most straightforward labels, but after carefully pretesting different options, these labels turned out to be the most intuitive for our non-linguist respondents (see Section 16.3.2.1). For the attribute category, that is, the attitudinal dimension, we opted for valence. We aimed to measure to what extent participants held positive or negative associations with the three varieties under study. The attribute stimuli were normed positively and negatively valenced real-life photographs (Spruyt et al. 2002). The labels used for the attribute categories were Dutch versions of 'I like' and 'I don't like'. Note that these are personalised labels in the sense that they refer to the personal opinion of the respondent, which is crucial for the P-IAT (see Section 16.3.2.4). A further aspect of the person-alisation of the IATs used here is that error feedback was omitted for the attribute stimuli.

In order to tackle block order effects, block order was counterbalanced between participants (see Section 16.3.2.3). This means that for each of our two P-IATs (one for Antwerp-accented CBD vs. SBD and one for West-Flemish-accented CBD vs. SBD), two versions were developed with inverse block orders. Thus, the study contained four P-IATs in total. These are referred to as experiments A, B, C, and D in Table 16.2, which also shows the number of trials in each block. These numbers are similar to those described in the design of the standard IAT in Section 16.1.2, but notice that we increased the number of trials in blocks 3 and 6, and that we added an additional four trials (one for each of the target and attribute categories, blocks Pre 3 and Pre 6) before each set of experimental blocks. These four extra trials were added to give participants an opportunity to get used to the combined categorisation task in the following two blocks. These trials were not taken into account in the analysis. Participant numbers were fairly evenly distributed over the four versions of the experiment (see Table 16.3).

The raw reaction times obtained in the P-IATs were converted to D scores as described in Section 16.4 using the IAT package in R (Martin 2015). Positive D scores indicate a preference for SBD over the regional variety in the sense that SBD is more strongly associated with positivity. A negative D score means a stronger association between positivity and the regional variety compared to SBD. D scores were analysed using linear regression modelling. Note that in the analyses presented below, we discuss the results of experiments A and B together as experiment AB and those of experiments C and D as experiment CD, given that we are not interested in analysing block order effects, but merely aim to counterbalance order to control for this effect (see Section 16.3.2.3).

Figure 16.2 displays the mean D scores in experiment AB (comparing Antwerp-accented CBD and SBD) and experiment CD (comparing West-Flemish-accented CBD and SBD) and summarises the main findings of the study. First, we notice that the mean D scores are positive in both experiments for each participant group. This means that both respondents from Antwerp and West-Flanders have more positive associations with the standard variety than either their own regional variety or that of the other group. In Rosseel et al. (2018) we interpret this as an indication of a strong standard language ideology.

Second, we see that these positive associations with SBD are not always equally strong. More concretely, Figure 16.2 shows an interaction between the language varieties in the P-IAT and the regional origin of the participants. For both groups of respondents, the association between SBD and positivity is stronger in the experiment that contains the other group's regional variety of CBD. Or put differently, language users' preference for SBD decreases when that variety is compared to their own regional variety of CBD than to another variety of CBD. This pattern could be interpreted as an indication of ingroup preference: When compared with the respondent's own variety, the positive associations with SBD are competing with positive associations with the

Table 16.2 *P-IAT structure experiments A, B, C, and D (Antw = Antwerp-accented CBD; WFl = West-Flemish-accented CBD)*

		Experiment							
		A		B		C		D	
block	# trials	left key	right key	left key	right key	left key	right key	left key	right key
1	20	Antw	SBD	SBD	Antw	WFl	SBD	SBD	WFl
2	20	I don't like	I like	I don't like	I like	I don't like	I like	I don't like	I like
Pre 3	4	Antw	SBD	SBD	Antw	WFl	SBD	SBD	WFl
		I don't like	I like	I don't like	I like	I don't like	I like	I don't like	I like
3	40	Antw	SBD	SBD	Antw	WFl	SBD	SBD	WFl
		I don't like	I like	I don't like	I like	I don't like	I like	I don't like	I like
4	40	Antw	SBD	SBD	Antw	WFl	SBD	SBD	WFl
		I don't like	I like	I don't like	I like	I don't like	I like	I don't like	I like
5	40	SBD	Antw	Antw	SBD	SBD	WFl	WFl	SBD
Pre 6	4	SBD	Antw	Antw	SBD	SBD	WFl	WFl	SBD
		I don't like	I like	I don't like	I like	I don't like	I like	I don't like	I like
6	40	SBD	Antw	Antw	SBD	SBD	WFl	WFl	SBD
		I don't like	I like	I don't like	I like	I don't like	I like	I don't like	I like
7	40	SBD	Antw	Antw	SBD	SBD	WFl	WFl	SBD
		I don't like	I like	I don't like	I like	I don't like	I like	I don't like	I like

Table 16.3 *Distribution of participants over experimental design*

	Antwerp participants	West-Flemish participants
Experiment A	23	24
Experiment B	22	21
Experiment C	22	20
Experiment D	23	21
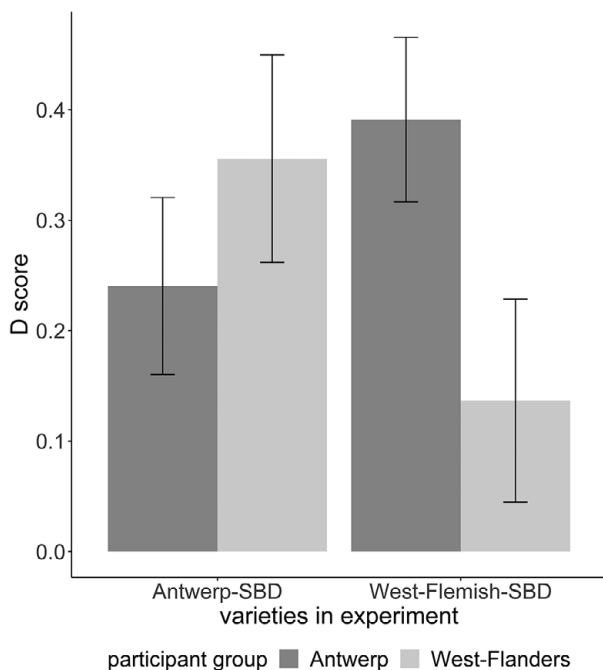
Figure 16.2 *Mean* D *scores per participant group for the P-IATs*
comparing associations with the two varieties of CBD vs. SBD*
* Positive D *scores indicate a stronger association between the*
standard variety and positivity than between the regional varieties
and positivity.

participant's native variety of CBD. For a further discussion of these results, see Rosseel et al. (2018).

Finally, although our hypotheses were confirmed overall, we did not find participants from Antwerp to prefer their own variety over SBD. Crucially, this hypothesis was based on a priming study. In Rosseel et al. (2018) we propose a number of methodological explanations for why the IAT results slightly diverge from the outcome of a priming experiment based on the same stimulus materials. As discussed in Section 16.2, attitudes measured with an IAT are based on both

labels and stimuli. In a priming experiment, no labels are used. Hence, we suggested that the explicit presence of a label referring to SBD may have led to the measurement of attitudes in which the dominant standard language ideology in Flanders shines through more than in the priming experiment, where explicit labelling of varieties was absent.

Suggested further readings

Campbell-Kibler (2012); Gawronski et al. (2011); Greenwald et al. (1998); Pantos and Perkins (2012); Teige-Mocigemba et al. (2010)

PART 4

Overarching Issues in Language
Attitudes Research

17 Researching Language Attitudes in Multilingual Communities

Bernadette O'Rourke

17.1   Introduction

Multilingualism has been the norm throughout history and continues to be in contemporary societies. However, the power relations between different language varieties and their speakers within multilingual societies is not always equally distributed, with some more valued than others. In the same way that anthropologists will not judge the relative worth of cultures, linguists believe that one language is as good and adequate as any other (Grillo 1989). Despite this, however, in multilingual societies languages are often evaluated and judgements are made about their worth as well as that of their speakers, leading to the national distribution and transnational hierarchies of languages that is in place today.

When it comes to determining the outcome of language contact situations in multilingual communities, early studies within the sociology of language tended to implicate macrosocial events as direct causes of whether a language continued to be used or not in a community (see Weinreich 1968; Fishman 1976). In more recent years, however, research has shown that it is only through an analysis of the interpretative filter of beliefs about language that the effects of such macrosocial factors can be fully understood (Mertz 1989: 109). This 'interpretative filter' of beliefs to which Mertz (1989) refers is often explored under the rubric of language attitudes. In understanding beliefs in language-related research, attitudes provide a useful lens to tap into the dynamics of language use and multilingual practices as social behaviours.

Language attitudes and related terms frequently appear in discussions around language policy and planning efforts in multilingual contexts. Indeed, it is often an implicit or explicit assumption of much policy and planning that attitudes can or should change (Baker 1992). In some instances, such policy and planning are in fact largely, if not principally, concerned with inculcating attitudes either to the language(s) or its speakers. As Dorian (1998: 5) writes, languages are seldom admired to death but are frequently despised to death. Therefore, changing language attitudes, beliefs, or ideologies is often seen as the first step in the process of language revitalisation efforts, for instance. The quest for (improved) status and solidarity are often regarded as the chief motivating attitudes for

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language behaviour of communities (Ryan and Giles 1982). Reversing the low-prestige status and stigmatised identities associated with minoritised languages such as Irish, Galician, and Welsh constituted the central language-planning problem facing these language movements.

Despite the extensive survey of work in the field of language attitudes, a great deal of attitudinal-type data still gets overlooked in multilingual research. This is because of a lack of terminological consensus surrounding the use of differing but related concepts across different research disciplines where other terms – including ideology, opinion, belief, habit, value, evaluation, and perception – are also frequently used.

Although much of the work on language attitudes has been conducted under the rubric of the social psychology of language, other disciplines including linguistic anthropology, the sociology of language, sociolinguistics, applied linguistics, communication studies, and education have overlapping concerns and involvement in researching multilingual communities (see also Chapter 1). The more socially grounded approaches to language attitudes in these fields (e.g. Gal 1979; Dorian 1981; Woolard 1989) which form the focus of this chapter, attempt to recast the interpersonal attitude which had grown up within the social-psychological tradition as 'a socially derived, intellectualised or behavioural ideology akin to Bourdieu's "habitus"' (Woolard 1998: 16). While the term *attitude* can also be found in multilingual research, the terminological shift to 'ideology', in particular in critical multilingualism (see Martin-Jones et al. 2012), provides a different research perspective and emphasises the more sociological as opposed to the traditionally psychological focus associated with research on language attitudes. The term *ideology* also highlights the importance of the group as opposed to the individual and is used to refer to codification of group norms and values (Baker 1992: 15), as opposed to the more individualistic representations manifested through language attitudes within the social-psychological framework. (See also Chapter 1 for a discussion of the differences between language attitudes and ideologies.)

Many different methods can be used to examine language attitudes in multilingual societies. Because of differing arenas of focal concern, socio-psychologically and socially grounded approaches lend themselves to different types of methodologies. Socio-psychological approaches to attitudes, for instance, are generally associated with an objectivist concern with quantitative measurement of speakers' reactions and tend to measure reactions to multilingualism or specific languages through more standardised and objective forms of data collection (e.g. surveys, structured interviews, and matched-guise tests). More socially grounded approaches to attitudes tend to draw on methods used to elicit qualitative data which can include direct questioning of users' views about certain languages or ways of speaking in multilingual contexts. These include techniques such as interviews and focus group discussions. Ethnography, conversational analysis, and discourse analysis are also used in socially grounded approaches with the methodological reliance on qualitative data largely related to

its association with linguistic anthropology, critical sociolinguistics, and interpretive sociology. While ethnography tends to be associated with methods or techniques to elicit qualitative data (e.g. interviews, observation, and collecting and analysis of artefacts), what distinguishes ethnography from these methods per se is the long and sustained engagement with social actors and 'thick description' of social action within the context of their social, cultural, and historical situatedness (Geertz 1973). In this sense, ethnographic approaches to language attitudes in multilingual contexts seek to understand how historicised processes of social organisation unfold in real time and in real life (Heller 2011). As such, an ethnographic approach to critical sociolinguistic research provides a conducive framework for tapping into socially grounded approaches to language attitudes within multilingual communities as they happen.

Socially grounded approaches to language attitudes in multilingual research tend to emphasise how speakers' beliefs and feelings about language are constructed from their experience as social actors in a specific political economic system. The emphasis is on how speakers' often-partial awareness of the form and function of their semiotic resources is critically important (Kroskrity 2018). Socially grounded approaches to attitudes in multilingual contexts tend to be gleaned from both explicitly articulated ideas and beliefs about language (e.g. in ethnographic interviews) but can also be inferred from what people do with language in multilingual contexts (e.g. observation of interactions).

As illustrated in the first case study below (Section 17.4), while sociologically grounded approaches to attitudes do not refute the fact that dispositions towards a language or languages are acquired by an individual, they stress that such dispositions reflect a common response to a set of common societal as opposed to individualistic conditions (O'Rourke 2011c). Therefore, as well as studying attitudes towards different languages in multilingual contexts, research is also conducted on attitudes towards societal multilingualism and the presence or absence of monolingual versus multilingual ideologies which underpin certain types of behaviour or decisions about language use on the ground.

17.2   Research Planning and Design

Studies that focus on multilingualism have contributed to understandings of multilingual research practice and language (Martin-Jones et al. 2012). Building on this broader literature on 'researching multilingually' (Holmes et al. 2013), this section examines issues around planning and research design when investigating language attitudes (and ideologies) in multilingual communities, and how these different research designs affect what data is collected and how it is interpreted.

When planning and designing a research project in multilingual contexts, decisions are often made from the outset to focus on one specific language. However, even if one language is selected as the focal point of study, other

languages may also need to be included so as to take into account the effects of language contact and the differing power relations amongst different language groups. Where a language has become minoritised in that contact situation, the focus of the project might be on understanding whether or not speakers have internalised this position as a result of negative attitudes towards it. In cases where language policies and planning initiatives are put in place to revitalise a particular language, language attitudes can provide key insights into what strategies need to be put in place to reverse negative attitudes and to raise the status of the language. Attitudinal research can also be used to gauge the extent to which language policies and planning efforts have been successful in changing people's attitudes and in turn changing behaviour, as will be illustrated in the second case study below on Galician, a minoritised language in contact with Spanish in north-western Spain (Section 17.5).

Other research projects, however, may focus on several languages in the community, with an interest in the dynamics of multilingualism more broadly. In such cases, the emphasis may be on understanding the views of individuals around which languages are valued and which are not, and why and how such views are shaped by monolingual ideologies. The first case study examines attitudes towards multilingualism in a school context where a high proportion of the school cohort speaks a language or languages other than that of the host community (Section 17.4).

As well as identifying which language or languages will be explored in the project, decisions also need to be made about whose language attitudes are to be examined. In the second case study below, the first phase of the project focused on young adults aged between 18 and 25 building on previous research which had identified this age group as most positively disposed to the language as a result of language policies interventions since the 1980s. However, research also showed that positive attitudes were not resulting in increased use of the language amongst these age groups. The first phase of the project described in this case study focused specifically on this particular age group so as to develop a greater understanding of the mismatch between positive attitudes and language use.

When planning for multilingual projects, decisions about whether to focus on overt or covert attitudes will depend on the research questions being explored. Overt attitudes can be gleaned from direct questioning methods through batteries of attitudinal statements in questionnaires, or by asking people directly about their views in a qualitative semi-structured interview. To explore young people's attitudes towards Galician as outlined in the second case study below, respondents were asked to rate their level of agreement or disagreement with attitudinal statements on a variety of themes such as people's views on the vitality of the language, support for government investment in the language, and statements about the role of Galician as a symbol of a personal or group identity. Other statements were used to tap into some underlying prejudices associated with the language such as the link between speaking Galician and rurality. For many Galicians it is no longer politically correct to make stereotypical statements about

the language and as such more indirect methods are required to get at deep-rooted prejudices which may be affecting language use. Indirect methods such as the matched-guise technique tend to be more effective in searching beneath the surface and in capturing such deep-rooted feelings and beliefs.

In research in multilingual contexts, there is often a need to make research instruments such as questionnaires, interview questions, or experimental methods available through translation into the language of the group or community. Thompson and Dooley (2020) highlight that inadequately translated tools and data can lead to inaccurate conclusions, emphasising the importance of research rigor for studies carried out in multilingual contexts, where clear, replicable, translation processes are needed to maximise trustworthiness and validity of the data. Equally, in the case of qualitative data collected by means of interviews or focus group discussions, gaining trust of participants can be affected by the language choices made by the researcher. At the beginning of language attitudes research in Galicia in the early 2000s (see Section 17.5), the author often conducted interviews in Spanish, considering her linguistic abilities to be inadequate at the time. In more recent work with new speakers of Galician, the ability to conduct interviews in Galician has allowed the author to build longer-lasting relationships through close accompaniment of participants across a range of Galician-speaking social spaces.

When researching contexts in which participants speak several different languages, a lingua franca such as English may be used in interviews or focus group discussions. Where no common language exists, interpreters and/or cultural mediators can facilitate communication between the researcher and research participants. Allowing participants to use their own language to express views about complex issues can lead to better discussion about issues affecting them as a social group. However, in multilingual research where both researchers and participants have access to multiple linguistic repertoires, these can be drawn upon and negotiated during the interview process and in focus group discussions. Code-switching and language mixing during the interview process or through observations of participants language use can also provide important insights into language attitudes and ideologies. In the case of the second case study below, Galician new speakers seemed to show very negative attitudes towards language mixing with Spanish, adopting what could be interpreted as a purist approach to language. However, even while explicitly stating their contempt for such practices, their own utterances frequently displayed code-switches and mixing (see Section 17.5).

17.3   Data Analysis and Interpretation

When analysing quantitative attitudinal data collected through questionnaires, a first stage in the process will often involve describing the data through descriptive statistics so as to get an initial picture of whether attitudes are

broadly positive or negative. Questionnaires often include a battery of attitudinal statements which are used to gauge whether or not respondents hold positive or negative dispositions towards some aspect related to the language or the multilingual context. These statements can be drawn from existing sociolinguistic surveys or attitudinal questionnaires. This approach might be adopted because the statements have been tested previously and thus ensure greater validity. Using similar attitudinal statements also allows for a longitudinal analysis of the data and measure trends over time.

Batteries of statements generally attempt to capture the multidimensional nature of language attitudes. During data analysis, attitudinal items from questionnaires are grouped into broader clusters or factors that represent underlying constructs related to the theoretical and conceptual design of the study. The statistical technique known as factor analysis can be used to examine the interrelationship among attitudinal variables and to group them together under a number of themes. In attitudinal research, instrumental and integrative dimensions of language attitudes have been identified by researcher across boundaries of time, sample, and nation corresponding to socio-psychological distinctions between different forms of motivations in Gardner and Lambert's (1972) influential study of second-language acquisition. Socially grounded distinctions of these broad dimensions in multilingual research correspond to labels such as 'status' (or prestige) and 'solidarity' dimensions, aligning loosely to 'anonymity' and 'authenticity' (Gal and Woolard 2001) or 'pride' and 'profit' (Duchêne and Heller 2012) frameworks used to describe the value of language in modern western societies. While quantitative analyses use statistics to identify attitudinal dimensions in the data, qualitative analyses draw on inductive and interpretivist approaches. Thematic analysis (Braun and Clarke 2006), for instance, uses coding by identifying items of analytic interest in the data and tagging these with a coding label.

Many of the points discussed in this chapter up to now can perhaps be best illustrated in examples of actual research projects aimed at exploring language attitudes and ideologies in multilingual contexts. The next two sections briefly present the research contexts and planning and designs of two specific projects along with the ways in which the findings were interpreted.

17.4   Case Study: Language Attitudes and Negotiations of Multilingualism in Dublin Classrooms

The first project I discuss here relates to an investigation of language attitudes and ideologies that I conducted in Dublin, Ireland's capital city (see O'Rourke 2011c for a full discussion of this study). The study looked specifically at the ways in which multilingualism was managed and negotiated in contemporary Irish educational contexts and presented an example of a primary school in inner-city Dublin. Ireland has a long history of linguistic diversity. The

Republic of Ireland has two official languages, Irish and English, and the island of Ireland is also home to a number of other native languages, including Ulster Scots, Irish Sign Language, and Gammon or Cant (a language historically known to and used by Irish Travellers). Socio-economic changes over the recent decades have meant that Ireland, and particularly its capital city Dublin, have more important points of entry for economic migrants, refugees, and asylum seekers. Ireland has gone from being a county which was traditionally characterised by a high rate of emigration to a country with one of the highest rates of net immigration in the European Union. This has led to changes in Ireland's linguistic landscape, with an estimated 200 or more languages now spoken in the country.

The study drew on ethnographic fieldwork over a period of eighteen months and participant observation as part of a multilingual action research project involving teachers, pupils, and parents of pupils at Lane Street Primary School (for more details, see O'Rourke 2011c). Through the incorporation of a range of multilingual and language-awareness activities into classroom practice, the aim of the project was to develop positive language attitudes towards multilingualism and to create a school environment which explicitly valued and recognised the languages that children were bringing to the school. The study sought to examine the various ways in which multilingualism was being negotiated and mediated at various stages of the project and how such negotiation was influenced by different language attitudes and ideologies.

Language attitudes were elicited in different ways and at different stages of the project. For example, prior to the commencement of my fieldwork, a letter was sent to the acting principal at the school, explaining the aims and objectives of the multilingual-awareness project and inviting the school's participation. While the principal's response to the project was on the whole favourable, it became clear from the outset that a certain amount of negotiation would be required in getting the different facets of the project approved and in convincing him of the long-term benefits of the language awareness activities I was proposing. During my first visits to the school I conducted a series of focus group discussions with teachers to glean what their collective attitudes were. During the discussion, I generally encouraged individual teachers to talk about their experience of teaching in a multilingual school. I asked them about the challenges this presented to them as well as opportunities that multilingualism provided. While positively disposed to the idea of supporting multilingual classrooms they seemed to be at a loss as to how to achieve such multilingualism in practice.

Some other teachers still displayed what appeared to me as more negative attitudes towards multilingualism in their classes and displayed monolingual ideologies. The English Language Support (ELS) teacher expressed the view that more emphasis should be placed on getting the children to speak English as quickly as possible to support better integration.

On the surface, he displayed a somewhat negative attitude towards multilingualism. However, had I based my analysis on direct questioning about his views

I would have only captured part of the story. Participant observation of the ELS teacher's classroom practices over the following months provided a very different picture. For the eighteen-month period of the project I observed the teacher's explicit support for linguistic diversity through his encouragement of students to share their linguistic experiences with others in the classroom. This behaviour was very much at odds with the perception I had created of him in our original discussions at the start of my fieldwork and provided clear displays of investment in children's multilingualism. This mismatch between language attitudes and actual use is not unusual of course and my observations over the course of a year at the school provided insights into explaining what was going on. In his initial discussions with me as a University researcher and an outsider to the group, the teacher presented what he saw to be the legitimate discourse associated with his official role as ELS teacher in the school. He used a monolingual discourse which hid the multilingual habitus later displayed in his everyday language practices.

17.5   Case Study: Language Attitudes and Practices among New Speakers in Galicia

The second project I discuss here looks at my ongoing research on new speakers of Galician in the Autonomous Community of Galicia in Northern Spain. The term *new speakers* refers to people who were not brought up speaking the minority language in the home but who acquired it through the education system or other informal means (O'Rourke et al. 2015). This profile of speaker can be found in many minority language contexts, including for example, Gaelic, Breton, Welsh, Catalan, Occitan, Manx, and Irish – languages which have been revitalised with some measure of success as a result of more favourable language policies within their respective national contexts, but which have often faced the consequent problem of social differentiation between first- and second-language speakers (see also Chapter 8).

In my earlier sociolinguistic work on Galician as part of my doctoral research in the early 2000s, I examined language attitudes and practices amongst young adults in urban contexts. I looked specifically at the degree to which positive attitudes towards the language were leading to increased language use. Successive sociolinguistic surveys in Galicia since the 1990s had shown that language policy interventions since the 1980s had led to more favourable support for the language particularly amongst younger generations but this was not matched by increased levels of language use. To understand this apparent mismatch, I distributed a sociolinguistic questionnaire to more than 700 students in the Galician city of Vigo. The questionnaire asked participants to respond to a battery of attitudinal statements on a five-point Likert scale. These were cross-tabulated with a range of sociological and demographic variables. The findings showed that the majority of these young Galicians were strongly supportive of

the language, they supported government spending in the area and saw Galician as an important part of their identity as Galicians. This was not matched by increased language use. In my study, however, I identified a correlation between very positive attitudes, a strong Galician ethnocultural identity and increased levels of language use amongst a minority of young individuals. These individuals had not been brought up speaking Galician in the home but had become active speakers and had made a conscious decision to use *só galego* ('only Galician'). Within the confines of my PhD project at the time, I was unable to delve much further into the sociolinguistic dynamics of this under-researched sub-group (see O'Rourke 2011a for details). I was nonetheless able to glean some initial insights into this profile of speaker in an in-depth qualitative interview with Alexandra, who identified herself as a *neofalante* ('new speaker'), having grown up speaking Spanish but reporting a conscious decision to switch to Galician in her late teens and on entering university consolidating the process of *dominant language displacement* (O'Rourke and Ramallo 2015). The in-depth qualitative interview with Alexandra allowed me to further examine what had motivated her to become a Galician speaker. Building on my first research encounter with an active new speaker of Galician, in more focused research activities on the sociolinguistics of new speaker I have sought to understand why and to what effect some Galician new speakers such as Alexandra and others whom I encountered during various fieldwork trips since 2012 were investing in the use of Galician. To gain insights into new speakers' views as a collective and to understand their dynamic, I conducted a series of focus group discussions (see O'Rourke and Ramallo 2013) as well as in-depth narrative life interviews (see O'Rourke 2017, 2018). During the focus group discussions and individual interviews, participants were asked directly about their motivations for acquiring Galician.

As well as a professed commitment to monolingual practices in Galician, many new speakers I interviewed expressed what could be described as purist attitudes to language and were critical of mixing words or structures which showed signs of interference from Spanish. They often endorsed linguistic boundaries and keeping languages separate was generally seen as key to the survival of Galician and assimilation to the dominant language. Many new speakers admitted (somewhat shamefully) to using *castelanismos* (words borrowed from Castilian Spanish) but expressed a desire to avoid doing so. This was not something they always succeeded in doing as I witnessed through my observations of their linguistic practices. This was evident in the code-mixing and loanwords from Spanish which frequently appeared in the way they spoke during our interviews and my observations of how they used language in their conversations with me and others with whom they interacted.

Taken on their own, responses from these new speakers through interview accounts and focus group discussions could be interpreted as monolingual ideologies, and so new speakers I interviewed seemed to be reproducing the same received notions about language and nation which led to the oppression of

Galician speakers in the first place. Urla et al. (2017) refers to this as the *reproduction thesis*, that is the type of analysis frequently found in the study of resistance or oppositional social movements (such as my own analysis of Galician new speakers above) which see the strategies and discourse for contesting linguistic domination as reproductions of dominant language ideology, and the unwitting adoption of logics of monoglossic, stratified, and bounded languages (see Woolard 1998). Following Urla et al. (2017), the question I needed to ask in the analysis of new speaker attitudes and ideologies was whether or not this really was reproduction or if something else was at play. To get at these answers I used thick ethnographic description to explain what – on the surface at least – seemed like monolingual ideologies (for a full discussion of the study see O'Rourke 2019). Many of the new speakers I interviewed and observed recognised that despite all their efforts it was difficult to escape dominant language ideologies in which Spanish continued to be viewed as the unquestioned norm outside of the Galician-friendly home spaces they had attempted to create. Extended periods of fieldwork thus allowed me to go beyond the reproduction thesis and through sustained observations and questioning of the everyday lived experiences of new speakers' daily interactions with other social actors allowed me to piece together a more nuanced understanding of their language attitudes and the relevance of monolingual practices and ideologies for these new speakers.

17.6   Further Important Considerations

Research on the dynamics of multilingual communities is often concerned with understanding the extent to which different varieties are used or not, and whether or not different speakers maintain certain languages. In language revitalisation studies, for instance, the survival prospects of different languages are often based on the degree to which they are used or not by members of the community (Fishman 1991). The behavioural component of language attitudes (see Chapter 1 for a discussion of the components of language attitudes) is therefore of great interest in studies on the dynamics of multilingual communities, particularly where hierarchies exist within language contact situations. However, understanding and measuring this behavioural dimension has also proven most problematic. Behaviourist models in the social psychology of language have questioned the role of attitude research and suggest concentration on actual behaviour rather than 'behavioural intentions' elicited through attitudinal research. The mismatch between language attitudes and behaviour has led some writers to suggest bypassing language attitudes altogether and studying language use directly. However, eliminating attitudinal research is also refuted on the grounds that behaviour can be consciously or unconsciously designed to disguise or conceal inner attitudes and may in fact produce miscategorisation and

wrong explanations. Baker (1992) has advocated for the merits of language attitude research, suggesting that human behaviour is mostly consistent, patterned, and congruent in terms of attitudes and action, so long as the same levels of generality are used.

Socially grounded approaches to language attitudes also raise issues when it comes to data interpretation and analysis and mismatches between people's language ideologies (inferred by what they say about certain languages or ways of speaking) and how they behave with these languages can also be frequently found. The more widely accepted interpretation among scholars, however, is that socially grounded attitudes are themselves behavioural and that meaning is produced through lived experiences. As such, mismatches between what social actors say and what they do can perhaps be seen as less problematic than in the socio-psychological and mentalist interpretations of language attitudes. From a theoretical perspective, as Baker (1992: 16) notes, observation of behaviour does not necessarily lead to an accurate and valid understanding of social reality. Ethnographic approaches to the analysis of multilingual communities lend themselves to the close and sustained analysis of how people live out multilingualism on the ground. An ethnographic approach which involves collecting data on what people say about language (through direct interrogation and questioning, e.g. in-depth interviews, group discussions) along with what people do with language across time and space (through observation of their behaviour) to an extent allows us to overcome debates around mismatches between attitudes and behaviour.

In multilingual contexts, ethnography can provide a mode of analysis committed to richly detailed, textured, and contextualised understandings of individuals' life worlds (Ortner 1995). This necessarily involves long-term and close accompaniment with social actors so as to help researchers achieve a more complex view of what social actors tell them and explain, as both case studies in this chapter illustrate, what at first sight may seem like negative attitudes towards a particular language or linguistic group or be interpreted as a monolingual ideology may in fact be something very different.

Suggested further readings

Heller et al. (2018); Kroskrity (2018); O'Rourke (2011a); Woolard (1989); Woolard (1998)

18 Researching Language Attitudes in Signing Communities

Annelies Kusters, Maartje De Meulder, and Erin Moriarty

18.1   Introduction

Language attitudes have been a central aspect of signed language research for decades, especially in the sense of countering widely held misconceptions on signed languages (Burns et al. 2001; Hill 2012; Kusters et al. 2020a), which include the ideas that sign languages do not have grammar, are merely gesture or mime, are universal, are based on spoken languages, can only portray concrete situations, and cannot be used to express complex ideas. Following such misconceptions, linguists recognised signed languages as bona fide languages only from the 1960s, opening the way for linguistics and sociolinguistics research (Murray 2017).

Language attitudes such as these have been instrumental in the implementation of oralist educational policies intended to prevent deaf people from signing (Kusters et al. 2020a). As a result, many deaf people do not learn to sign, or only learn to later in life, and many deaf people (whether they sign or not) have internalised these negative language attitudes (Ladd 2003). On the other hand, more positive attitudes regarding sign languages support their ongoing use and transmission (Padden 1990; Hill 2012; Supalla and Clark 2014). Krausneker (2015) offers a grid of different types of ideologies on signed languages that govern attitudes relevant to signed language policy making.

While the existence and power of language attitudes has been addressed and affirmed in sign language studies and Deaf Studies[1] in different ways, work that is specifically framed as an analysis of language attitudes in signing communities is only just emerging (Kusters et al. 2020a). Examples include the work of Burns et al. (2001), Reagan (2011), Hill (2012), Kusters (2014), Krausneker (2015), Palfreyman (2019), and the chapters in the edited volume *Sign Language Ideologies in Practice* (Kusters et al. 2020b). In Deaf Studies and sign language research, the term *language ideologies* seems to be more widely used than *language attitudes*. Several of these scholars have used the term *ideologies* in a broad way; not only including beliefs, but also focusing on emotions and

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[1] More recent convention has been to not capitalise 'D', as in *Deaf*, because the capitalisation of Deaf denotes a specific cultural identity, located in a Eurocentric twentieth- and twenty-first-century framework, that not all deaf people identify with. *Deaf Studies* is usually capitalised by scholars in this field, to denote the academic field.

practices. An important example of this is the *Sign Language Ideologies in Practice* edited volume which, following Ryan et al.'s (1982) definition of language attitudes as having cognitive (beliefs), affective (emotions) and conative (practice) components, focuses on the interplay of the cognitive and conative components of language attitudes (see also Chapter 1).

Deaf communities' emergence has centred around places where deaf people have lived together or gathered frequently, such as deaf schools, within large multi-generational deaf families, in large cities, and in places with high rates of hereditary deafness. These communities, and the signed languages that are used, have historically emerged in specific geographical locations around the world, rather than in relation to specific (national) spoken languages. In the title of this chapter, *signing* communities is used to foreground that signed languages are used in these communities, but that not everyone who forms part of these communities identifies as deaf.

Signing communities consist of very diverse groups of people who have different affiliations with signed languages and spoken languages. There are deaf and hearing heritage signers (Pichler et al. 2018; Napier 2021) who often learnt to sign at a (residential) school for deaf children, or from their deaf parents. This group is now skewed towards the older age groups and decreasing, especially in Western countries, due to the closure of congregated deaf education settings in favour of regular education settings. On the other hand, there is an increasing number of deaf new signers (De Meulder 2019) who have a non-heritage background and sign language acquisition path. These acquisition pathways are becoming the rule rather than the exception. There further is a growing and heterogeneous group of hearing new signers with mixed investments in signed languages, such as parents of deaf children, sign language interpreters, and sign language students. Western signing communities are now witnessing hearing children with signs or a signed language in their linguistic repertoire outnumbering deaf children: Hearing children learn to sign, for example, in 'baby signing' courses (Pizer et al. 2007), from their (deaf) parents, or at school (e.g. as an elective).

In the study of language attitudes, the inclusion of hearing signers is thus inevitable. Indeed, 'if we include family members and sign language students, it is likely that a majority of those who know national sign languages are now hearing, not deaf' (Bauman and Murray 2017: 252). To be sure, this chapter does not call for a replacement of the term *deaf communities* by *signing communities*; rather the focus in this chapter is inclusive of those hearing people who sign. For example, it includes research in classrooms of hearing novice students who learn how to sign, and language portraits by hearing signers.

Signed languages often consist of a number of varieties (e.g. urban and/or rural varieties, older vs. newer generations of signers, elite vs. non-elite) that have developed as a result of social factors that shape the lives of deaf people, including those that have had an impact on spoken languages, such as geography, social segmentation, class, gender, race, and so forth. These often co-exist or correspond with the abovementioned social factors that are particular to signing communities,

such as the devaluing of sign languages in general, communication policies in deaf education settings, and differential embodiments (such as being Black or DeafBlind; see McCaskill et al. 2011; Edwards 2014; Palfreyman 2019).

Signers, like speakers, often make use of multilingual and multimodal language repertoires; especially today, giving the growing number of multilingual signers. They live and work in settings that more often than not involve language contact between signed, written, and spoken languages and may use several signed languages and spoken languages (the latter in their oral or/and written modality). Therefore, language attitudes regarding signed languages may pertain to signed languages, and/or their relationships to other languages (signed or spoken) and modalities (including speech and writing). The cognitive component of language attitudes (i.e. language ideologies, see Ryan et al. 1982) involves ideas about boundaries and the vitality of signed languages, especially in terms of contact with hegemonic languages and modalities, such as spoken English and/or American Sign Language (ASL; see Hill 2012; Kusters 2020; McKee and McKee 2020). Scholars have studied language attitudes in relation to the above-mentioned signed language varieties; linguistic authority, authenticity, and ownership; and the emergence (or development) of new sign languages and new subject-specific vocabulary (see e.g. McCaskill et al. 2011 for the African American variety of ASL).

18.1.1   Interviewing

Different types of interviewing can be used in the study of language attitudes in signing communities: structured, semi-structured, and ethnographic (see also Chapter 7, on semi-structured interviews). Often, interviews are combined with other methods described below (such as participant observation, focus groups, and data-elicitation with video). The data from interviews are then either analysed with the other data or presented separately (e.g. Spooner 2020). Research on sign language corpora can also include an interview component focusing on language attitudes. One of the components in the *British Sign Language* (BSL) *Corpus Project* (2018) was the elicitation of language attitudes in interviews in pairs. Participants were asked questions such as on the difference between BSL and English, BSL and Signing Exact English, and perceptions of regional variations of BSL (Schembri et al. 2013; Rowley and Cormier 2021). In another example of a multi-methodological study of sign language attitudes, Mitchiner (2014) used surveys and interviews to investigate the attitudes, beliefs and practices on bimodal bilingualism in ASL and English by seventeen deaf families with children with a cochlear implant in North America.

18.1.2   Data Elicitation with Video

Video clips of signers can be used to elicit language attitudes that are expressed through categorisation of forms of signing. Hill (2012), based on

Lucas and Valli (1992), conducted a study on attitudes towards sign language among deaf people in the United States using methods to elicit quantitative and qualitative data. He asked seventy-four participants (younger, older, white, black, native, and non-native signers) to rate sixty videoclips of signers as 'strong ASL', 'mostly ASL', 'mixed', and 'non-ASL'. In case participants were provided with social information (such as deaf/hearing family, deaf/hearing school, etc.), their perceptions of the signer's social identity (e.g. the signer was culturally deaf, non-culturally deaf, or hearing) were a significant criterion in the participant's evaluation of their signing skills/fluency. Hill also used video clips to elicit data by asking participants to classify if signing was ASL, mixed, or Signed English (ASL with English structures and invented forms for English grammatical elements) and then connected these classifications to value statements. In this study, Hill investigated the ways in which the personal attributes of the signer, specifically, race, age, and signing fluency, shaped perceptions of the signer, showing that there is a correlation between the signer's attributes and perceptions of attitudes, pointing to the risk of using different people as signing or speaking models in a study of language attitudes.

18.1.3   Focus Groups or Group Discussions

Focus groups or discussion groups, which is when a group of participants are given a specific topic or questions to guide a discussion, have been organised on their own or as part of a larger project that, for example, also includes interviewing (see also Chapter 8 on focus groups). Adam (2016) organised discussions in pairs or threes of elderly deaf signers of the Australian Irish Sign Language, discussing (among other themes) attitudes towards this disappearing minority language and its use in relation to the majority sign language in Australia, Australian Sign Language (Auslan). Kusters and Sahasrabudhe (2018) organised six discussions with groups of between 30 and 100 deaf people in Mumbai, in a study of gesture-based communication. Discussions explored deaf people's experiences of using gestures with hearing non-signers, language attitudes towards gestures, and thoughts about the difference between gestures and signing (Indian Sign Language). By addressing larger groups rather than organising smaller focus groups, the researchers tied in with an established tradition in India (and elsewhere) of deaf club leaders and members taking the stage and addressing audiences in these clubs when wanting to explain things, to raise questions, and to discuss issues. This method does not allow for deep insights in individual attitudes, but it allows for the study language attitudes as presented in/to a large group, and responded to by others in that group.

18.1.4   Critical Discourse Analysis of Media and Policy Documents

A study of archives and online media can reveal how language attitudes are institutionalised and/or impact on general perception and policies

(Krausneker 2015). De Meulder et al. (2019) discuss how sign language legislation needs to be achieved, implemented, and understood through national legislative processes taking into account local language attitudes, and how campaigns for the legal recognition of signed languages are often grounded in language attitudes about sign languages as bounded, etcetera (see Chapter 2 for a discussion of Critical Discourse Analysis of print media). For example, Conama (2020) focuses on the impact of language attitudes on the campaign for recognition of Irish Sign Language (ISL) in Ireland between 1981 and 2016. Conama uses documentation of the progress such as debates in the parliament, newspaper articles, online media, historical accounts of Irish deaf education, and government reports to identify language attitudes and their impact on policy making. Although not explicitly naming them, these studies use what is called societal treatment methods in language attitudes studies (e.g. Garrett 2010: 142–158). This can be observational, participant observation, ethnographic studies, and studies of sources in the public domain that display the treatment afforded languages and language varieties and their speakers within society.

18.1.5   Ethnography

Ethnography is not strictly a method but an approach that involves the examination of people and their practices within their specific context, the use of a theoretical framework to guide data analysis, and/or the development of a theory that can emerge from this analysis. Ethnography often entails a combination of different methods, but the primary methodology is participant observation and the use of fieldnotes to document what is being observed or experienced. Participant observation means being present in various domains of life of research participants by observing them and actively engaging with them, by doing the same activities as participants, and having informal one-on-one/group conversations with them. This process is guided by research questions and a process of triangulation, but it also allows for other salient themes and patterns to emerge, which then further guides the process of participant observation. Participant observation is ideally suited for the study of the three components of language attitudes (cognitive, affective, and conative, see also Chapter 1).

Ethnography in classrooms, for example, can lay bare language attitudes that are embedded in curricula. Scholars have studied language attitudes in classrooms where a sign language is taught to interpreting students, to parents of deaf children, or others, and have identified classrooms as important spaces for sign language teachers to challenge widely spread naïve or negative language attitudes regarding sign languages. In addition, certain prescriptive attitudes regarding sign language use are passed on (Snoddon 2016, 2020). Classrooms are thus spaces for students not only to acquire language, but also particular language attitudes. Classroom observations allow to catch examples of explicitly or implicitly challenging and/or 'feeding' language attitudes. Researchers have

combined observations with interviews with students and teachers, and the analysis of textbooks and pedagogical choices encountered in the classrooms (Calton 2020; Marie 2020; Snoddon 2020).

Through ethnographic research one can study how people talk about signing in their everyday lives in various contexts, and how language attitudes in these contexts are related or in conflict (Hou and Kusters 2019). For example, Moriarty (2020a) examines sign language standardisation projects in terms of attitudes towards language ownership and sign language sovereignty in Cambodia, describing the various forces at work in this setting, such as the import of ASL by a French non-governmental organisation in 1997 and the concurrent efforts to develop a national sign language. Doing ethnographic research in a number of settings in deaf communities means encountering various attitudes, including those on rural versus urban varieties (Green 2014), and sign languages that are imported from abroad and reactions to this import (Cooper 2015; Moges 2015; Moriarty Harrelson 2019). Multi-sited research can be especially enlightening in this regard by showing that there can be a range of language attitudes within a particular group of people or locations. Parks (2014), for example, documents different attitudes towards ASL in Central and South America, showing that these attitudes include a variety of responses ranging from adoption of certain signs and sign languages to rejection.

Ethnography also is useful for identifying local naming, labelling, and categorising practices of signing varieties (e.g. Green 2014). Through repeated field visits over a period of ten years in the shared signing community of Adamorobe, Ghana, Kusters (2019) studied qualic evaluations of language: Similarities are identified between language forms on the one hand and the sensuous experience for example of objects. Through a process of repetition, these evaluations become conventionalised in language attitudes. It is only through recurrent participant observation over ten years that the connection between these language attitudes and other discourses became clear. Longitudinal ethnography in signing communities also allows researchers to identify change in language attitudes (Kisch 2012; Nonaka 2014).

18.1.6   Autoethnography

Autoethnography can be used to research personal emotions and perceptions related to sign language (O'Connell 2017; Weber 2020). Weber (2020) investigates shifts in her own language attitudes throughout her life, and how these shifts in attitudes were related to the communities she was involved in, in Saskatchewan, Canada, and Gallaudet University, United States. She provides an autoethnographic account of her acquisition of ASL in the context of diminished access to ASL role models and the use of ASL at Gallaudet University, which at the time was an educational environment primarily mediated by signed English. In her autoethnography she uses selections from

her autobiography (Weber 2013), based on personal diaries, archives, interviews with family members, photographs, and artworks. She outlines how her language attitudes were shaped by her professional training as educator for deaf children and her acculturation as a speaking deaf person, examining changes in her own language attitudes throughout different periods of her life. Autoethnography is also a productive way to investigate language attitudes in families with deaf members (De Meulder et al. 2022).

18.2   Research Planning and Design

Doing research with deaf signers entails a number of methodological and ethical issues. For example, surveys are often non-ideal, especially if they are in a written language. Some researchers have partly mitigated this by including signed videos in surveys (Smeijers et al. 2014; Young and Temple 2014). Research on language attitudes with regard to signed languages should foreground study *in* these languages rather than *of* these languages. In deaf-related research, there often is a distrust towards researchers who do not sign or are not fluent signers. Often, consent forms are not translated into a signed language and participants have no clear idea how the data will be used (Singleton et al. 2014). The presence of non-fluent signers working in the fields of sign language linguistics and other Deaf Studies-related research also raises questions about translation, analysis, and interpretation of data. When doing research via interviews or discussions, it is crucial that these are video-recorded and that researchers stay close to the videos when analysing data. Language attitudes can underlie the choice for particular signs or structures, and particular facial expressions that may be subtle and hard to catch or interpret for non-fluent signers and hard to lay down in translations to written languages.

Researcher positionality, and as part of this the researcher's competence in a signed language, is often not openly discussed in publications on signed languages and Deaf Studies research. It is important to reflect on how positionality may impact on the kind of language attitudes data one can generate, and how these data are interpreted. This goes far beyond competence in signed languages. Participants' positioning towards the researcher's background will impact on attitudinal statements and feelings they share with the researcher (or not). For example, in early studies of Black ASL in the United States, the positionality of hearing white researchers resulted in some barriers for their data collection (Woodward 1976). McCaskill, as a Black deaf woman herself, was able to gain access to these communities but also faced challenges because of her affiliation with Gallaudet University (McCaskill et al. 2011), as some community members perceived Gallaudet as the 'ivory tower', a place where research was done, far removed from their everyday concerns. Hou (2017) takes an intersectional

perspective on her researcher positionality when studying signed language socialisation in Mexico: She reflects on how her positionality impacted and shaped her research; more particularly her deafness, gender, race, ethnicity, education, mobility, and citizenship.

Ethnography can also entail the researcher taking different positions in the study, that is, switching hats, such as in the abovementioned study on gesture and sign in India and the film *Ishaare: Gestures and Signs in India* (Kusters 2015) that was created in this project. In addition to leading the abovementioned discussion groups, Sujit Sahasrabudhe was a research participant in the sense of being one of six in-depth case studies covered in this film; at the same time, he was also a research assistant in the other five case studies, doing observations and interviews (Kusters et al. 2016). During the research project, his language attitudes relating to gestures shifted, as well as his understanding of the difference between gestures and signs (Kusters and Sahasrabudhe 2018).

18.3   Data Analysis and Interpretation

Because transcriptions and publications are often in English, the use of sign language is often erased in data analysis and publications (Young and Temple 2014). There are ongoing challenges with translating signed languages, which do not have a widely used written form. Researchers working with sign languages often use linguistic glosses, which are simplified representations of individual signs. These do not capture the multidimensional and multimodal nature of signed languages (Crasborn 2015; Quer and Steinbach 2019). In written texts, particular signs are represented by these imperfect glosses, which are then detached from the actual signs (Hochgesang 2019). This problem can partially be mitigated by inserting pictures or (links to) videos of particular signs or longer signed utterances. It is also important to consider additional ways of dissemination such as via articles in signed languages, vlogs, documentary film, or ethnographic film. In the study of language attitudes, it is crucial to capture and closely analyse how people sign when talking about language and communication: Attitudes may be expressed in subtle facial grammar, or particular choice of lexicon, and aspects of those may be untranslatable.

Sharing excerpts of original data via these publication venues may not be an option when data is deemed sensitive by participants or researchers: When data is video-recorded it means that participants are identifiable in this data, and there may be issues of anonymity and confidentiality coming with the challenge of researching in signing communities that are often tightly networked (Singleton et al. 2014; Hill 2015b). To use face-blurring technology in some way would remove facial grammar, an important aspect of signed languages, and people may still be identifiable by their particular signing styles.

The study of sign language attitudes and interpretation of data is in itself political, especially because signed languages are still devalued in deaf education settings and policy arenas; also, there is a history and current phenomenon of hearing researchers who themselves demonstrate negative attitudes towards sign languages and deaf people in their research (Robinson and Henner 2017). These attitudes then become canonised as academic ideologies in publications that inform the practices and policies of educators and policymakers (Kusters et al. 2020a).

18.4   New or Emerging Trends

An emerging trend in the study of language attitudes related to signed languages is the use of visual methods in line with the visual turn in applied language studies (Kalaja and Pitkänen-Huhta 2018) and Deaf Studies (O'Brien and Kusters 2017). An example is the use of language portraits, empty whole-body silhouettes in or around which research participants colour or draw languages, language variants, or other aspects or modalities of communication. Usually, the drawing/colouring of a portrait is accompanied or succeeded by a verbal (or written) narrative explaining and commenting on the portrait (Busch 2012, 2018). The method is now also used in the study of signed languages and/or deaf participants (Krausneker 2005; Kusters and De Meulder 2019; De Meulder et al. 2022). Language portraits lend themselves well to investigating the affective component of language attitudes because narratives accompanying language portraits very often contain the expression of emotions related to language varieties. They also give insight into the cognitive component; for example, they give insight into how people collapse or separate languages and language varieties and modalities by mapping them on the body (Kusters and De Meulder 2019). The use of language portraits to study language attitudes is explained in Section 18.7.

Another key example of visual methods is the use of film and video, which has a long history in ethnography (Pink 2013). Use of film and video in linguistic ethnography allows researchers to attend to deaf people's embodiment, sensory experiences, and perceptions as they influence communication strategies and modalities in situated encounters, within the material and physical settings in which communicative encounters take place (Kusters et al. 2016; Moriarty 2020b). The use of video captures people's deployment of diverse visual and tactile resources, and how deaf people's communicative practices are shaped by differential sensorial access to certain communicative modalities (De Meulder et al. 2019). Filmmaking allows for movement away from lingual bias (Moriarty 2020b), which is the predisposition to treat signing as primary in deaf communication and the exclusive analytical focus on the production of signs and grammatical features. In this respect, filmmaking can connect the study of the conative

component of language attitudes and how language is conceptualised and experienced, by including real-life interactions as well as interview quotes. The video that is produced can then be used during interviews and/or discussion groups to elicit commentary on attitudes, beliefs, and ideologies about signed languages (Kusters et al. 2016). The case study presented in Section 18.6 expands on this.

In some cases, language practices are studied in the frame of a study that focuses on language attitudes. Recording with video can be disruptive in the research setting, unless smaller, less intrusive equipment is used, such as a smartphone or a smaller video camera, which allows for more natural data as people become comfortable with the camera's presence (Moriarty 2020b; De Meulder et al. 2022).

18.5 Case Study: Language Attitudes in Deaf Tourism in Bali

My current research project (Author 3) explores language ideologies and languaging practices in international encounters, specifically deaf tourism. In deaf mobility, there is often significant contact between various national and local sign languages. As deaf people travel and interact with people who use different national or local sign languages, they often acquire new linguistic resources in a short time, such as the adoption of new signs from other sign languages or the blending of different sign languages (Moriarty 2020b). This sometimes leads to expressions of concern about the vitality of certain sign languages.

As they engaged in deaf tourism in Bali, many deaf tourists intentionally sought out communicative experiences with local deaf people, learning and using new signs in national and local sign languages. The languages included Indonesian Sign Language (BISINDO) and, to a lesser extent, a hyperlocalised sign language, Kata Kolok, a sign language used by deaf and hearing people in a village in north Bali, as well as spoken languages, specifically, Indonesian and/or English. Mobile deaf people such as tourists or development workers carry with them ideas about the vulnerability of sign languages outside of Europe and North America. These attitudes lead to languaging practices, such as learning BISINDO before visiting a school for deaf children in Bali or communicating in gestures to avoid using ASL.

The fluid conditions of and the practices involved in deaf tourism shaped the methodologies for data collection that I used in the field, including participant observation, field notes, video recordings, visual methods for data elicitation showing a video made by a tourist about Bengkala to the residents of Bengkala and eliciting their reactions to the video, the collection of artefacts such as Instagram photos, and so forth. In this section, I focus on the use of ethnography to collect data on language ideologies and practices (see Section 18.1.5).

After a year of online data collection on deaf tourism, I conducted seven months of fieldwork in Indonesia. During fieldwork, I found a smartphone exceptionally useful for the documentation of people, places, and language practices, especially on the move. The mobility of this project's participants necessitated nimble methodology with light, easily portable equipment that could capture fleeting data. I used a notes app on my smartphone for jottings, as well as its camera for video and photographs to record moments in the field for later descriptive writing up of the interactions and discourses I observed.

Participant observation in conjunction with interviews led me to insights regarding certain moralities and stances about the use of a hegemonic sign language, such as Auslan and ASL, in settings outside of their national contexts. For example, I accompanied a tour group composed of tourists from the United Kingdom and France to a school for the deaf in Denpasar, Bali, where we were greeted at the entrance by a Balinese teacher, who was deaf himself. He welcomed us to tour the school, but before we went in he gave us specific instructions not to sign in our national sign languages or International Sign, as not to 'confuse' the children with our foreign signs. He told us that he did not want the children to learn 'wrong' signs from us. He instructed us to sign to him directly, and then he would translate into BISINDO for the children. Observing this encounter, I realised that this teacher believed that exposure to foreign sign languages was a threat to the integrity of the indigenous sign languages in Bali. Later, I followed up on this observation in an interview, and the teacher explained to me that he was concerned about the spread of hegemonic sign languages in his country.

The language attitudes I observed in deaf tourist encounters in Indonesia varied from context to context. In a tour group of mostly young, highly mobile deaf Europeans, most of whom knew some ASL, there were less overt expressions of negativity towards ASL, compared to the abovementioned school for deaf children. In a different tour group, comprised of older people from Australia, some tourists expressed concern about the possibility of 'corrupting' BISINDO by using Auslan with the school children. In some contexts, tourists of different nationalities viewed the teaching and learning of signs from their national sign languages as a sign of conviviality and cosmopolitanism – but this was within a mostly homogenous group of deaf people from countries with established sign languages.

The process of learning new signs as an enjoyable and convivial experience was not experienced by everyone. It was not an equally accessible opportunity, such as in the case of a new signer from Germany who was somewhat vexed by her difficulties understanding and using International Sign with the other members of her ten-day multilingual tour group. As one of the stops on their itinerary, the group visited the Monkey Forest in Ubud, a popular tourist site. There, she saw hearing people speaking German and she excitedly left the deaf group to converse with the German-speakers in speech.

As I accompanied various tour groups, I observed conversations and languaging practices that revealed certain attitudes about sign language contact in

tourism. I followed up on my observations with interviews, which then revealed more insight into language attitudes in deaf tourism, such as the desire to learn new signs in a new national sign language or International Sign. Observations of conversations between tourists of different nationalities during a tour led to the insight that in transnational encounters, deaf people often engage in metalinguistic conversations, comparing certain signs from their native signed languages and speculating about the origins of certain signs, and/or the influence of particular hegemonic sign languages, especially ASL and BSL, on less widely used sign languages.

18.6   Case Study: Attitudes towards International Sign

I (Author 1) study all three components (cognitive, conative, and affective) of language attitudes on International Sign (IS). IS takes place when signers of different (sign) linguistic backgrounds come together, and its use is variable and dependent on the geographical, political, social, cultural, and linguistic context in which it occurs and the backgrounds of interlocutors. It often incorporates signs from national sign languages, as well as fingerspelling and mouthing in different spoken languages, but also showcases a higher rate of iconicity than is often the case in national sign languages (Rosenstock 2008). There are studies of conventionalised (Whynot 2016) and less conventionalised uses of IS (for unconventionalised IS, see Zeshan 2015; Byun et al. 2018).

In international deaf gatherings, a complex set of language attitudes circulates regarding IS. Examples are perspectives on the role of iconicity and gestures, ASL, and English (in mouthings, fingerspelling, writing) in IS which in turn influences people's signing. Opinions about the use of lexicon from ASL and of English mouthings and fingerspelling in IS vary widely, going from resistance to acceptance (Kusters 2020). Facial expressions and iconicity are said to be central to IS but also cause culturally related misunderstandings.

Between 2017 and 2019, I engaged in seven different case studies, accompanied by a deaf camera team, since we are making an ethnographic film on language attitudes in relation to IS. One of these cases is the Frontrunners13 group in Denmark. Frontrunners is an international deaf education course, where the language policy mandates IS and written English.

In September 2017, we filmed the arrival of seventeen new Frontrunners travelling from Brazil, Jordan, Togo, South Korea, Belgium, France, Denmark, Spain, Ireland, Norway, Italy, Czech Republic, and the United States. We recorded the early stages of IS use in this group: how people communicated, rephrased, or explained when the other did not understand, brokered, and proffered spontaneous remarks about their experience of this communication process. I also did individual interviews about perspectives on IS with ten Frontrunners and two teachers. The last day, I organised a group discussion on IS, on the same themes as the earlier organised focus groups.

We returned for a week in May 2018. The last day of the May fieldwork, we showed a 35-minute film based on the recordings of interactions, interviews, and focus groups made in September (see Kusters 2018 for excerpts). When we showed this montage to the group it was received with laughter and surprise. After the showing of the film, people reflected on changes of signing in the group, and on the utterances in the film, referring to concrete examples in the film. They talked about the use of fingerspelling (now less used in general), mouthings (some people still use mouthings from other languages such as Portuguese and French), and ASL (it was said that ASL is used less in some contexts and by some people, but also more in other occasions).

Examples of utterances include: 'I now understand that English is not essential for IS, contrary to what I thought before', 'Oh, I used a lot of ASL, and now I don't, because people here told me not to, and I can better separate ASL from IS now', 'Now I feel IS is like *my* language, back then it wasn't, even though I could sign in IS', 'Back then, I found fingerspelling in English incredibly hard and it's still like that even though I expected I would significantly improve my English here', 'While in September I thought IS was 60 per cent ASL, now I don't think that anymore', 'I thought abundant facial expressions are absolutely central to IS but now I think that's not necessarily the case'.

People reflected on their own signing, on other's signing, and on the specific variety of IS used in the Frontrunners group. They discussed the question of who influences IS use in the group and if there is a particular 'Frontrunners13 IS'. They also reflected on changes in signing styles and changes in language attitudes compared to September.

Although I had a list of themes and questions to be covered after the film screening, a rich discussion unfolded unprompted. Ethnographic film on language attitudes helps people reflect and to have a discussion on their own terms, yet without going off-topic. Certain themes that were covered in depth were themes central for the IS experience of the Frontrunners, such as informal interpreting in IS (for each other) in the classroom.

18.7   Case Study: Attitudes towards Flemish Sign Language in Flanders

I (Author 2) used language portraits (LPs) as part of a larger mixed-methods study exploring the language practices, choices, motivations, and ideologies of deaf and hearing signers in Flanders, Belgium, and how these are linked to the sociolinguistic vitality of Flemish Sign Language (Vlaamse Gebarentaal, or VG). Apart from LPs, I used interviews and language diaries (De Meulder and Birnie 2020). The participants were ten deaf and two hearing signers, ages 18 to 62. Some of the participants were heritage signers while others were new signers. They all used at least VG and Dutch in their everyday lives. An initial interview entailed participants narrating a language biography in

which they were given the opportunity to reflect on their language learning trajectories and linguistic practices, and the purpose of the language diary was explained. After participants returned their diary, a second interview was planned to reflect on the diary entries, to allow for additional questions and for participants to produce a LP and subsequent narrative, which was filmed. I decided to use LPs to address the limitations of vitality research that is often focused on language dominance and language competition (Lamarre 2013) and because the visual aspect of the method seemed to be well suited to the kind of data I wanted to generate. Some of these portraits and parts of narratives can be found in Kusters and De Meulder (2019).

I asked participants to think about the languages/modalities they use now, used in the past, or hoped to use in the future; languages/modalities they associated with specific persons or places, or other ways to express themselves; how they felt about them; which colour they would attribute them; and which part of the body they associated with them.

All narratives were in VG except for two cases – one hearing participant, the mother of a deaf child, preferred to express herself in Dutch, as did one deaf new signer participant. For the purposes of analysis and writing, the narratives were translated into Dutch but in the process of analysis and dissemination I stayed close to the videos, going back and forth between transcript, portrait, and video. My own positionality as a Flemish deaf woman meant that I shared being deaf, and some lived language experiences, with some participants. This probably impacted positively on the depth of the narratives.

Language portraits were useful to give insight into the affective and cognitive component of language attitudes. Many participants focused on emotions (such as anxiety, pleasure, pain, stress, joy, or fear) regarding signing and the multilingual experience, related to particular societal or interactional contexts and to aspirations, desires, and memories. These emotions were often linked to specific body parts such as the heart but also the belly and throat. Referring to emotions is common in LP descriptions elsewhere, but my portraits also included emotions connected to the particular experience of being a deaf signer. For deaf signers, language-related emotions, scars, and desires are strongly connected to language modalities. In their LPs, participants for example included frustrations about being forced to speak or not understanding spoken language, or expressed their desire to learn new signed languages. The absence of a language modality in one's repertoire or the late addition to it is also important in this context, indicated by deaf new signers narrating about learning/using VG, and other deaf participants narrating and drawing about the absence of signs in their early lives or their recent establishment of semiotic preferences.

The cognitive component of language attitudes was illustrated, for example, by participants combining or separating languages and language varieties and modalities while mapping them on the body. Interestingly, the signed and spoken modalities were not represented on the LPs by a simple binary, with signed languages always being connected to the hands or eyes and spoken languages to

the mouth or throat. The LPs represent a much more complex picture: Signed and spoken languages can be placed all over the body and outside of the body in different relationships to other signed and spoken languages (the latter in the spoken or written modalities). Grouping languages as part of the modality of signing or speaking was one way participants configured the relationship between different languages – other ways were grouping languages along geographical location or context of use, or placing them next to each other to indicate language contact (between signed and spoken language or between two signed languages; Kusters and De Meulder 2019).

The usefulness of this method to generate data about language attitudes was particularly in the combination of methods. The interviews and diaries focused more on the cognitive and conative component of language attitudes. In the interviews, participants talked about their language beliefs and ideologies. The diaries gave insight into how the daily routines of participants were related to specific language practices, and the self-reported nature of the diaries generated data about participants' language beliefs. The portraits were the most useful to generate data about the affective component of language attitudes. In fact, compared to the individual interviews held in advance of the LPs, the LPs gave a far more individual perspective than these interviews. While in interviews people tend to follow what is expected from them (affected by social desirability and/or acquiescence bias), the LP allows them to focus on their idiosyncratic repertoires and highly personal experiences and desires. This is significant, because deaf people are often seen as a monolithic group, a collective (Ladd 2003). Also, in discourses on the positive aspects of multilingualism, people's struggle with certain languages or modalities is sometimes silenced, and the LP can give access to those feelings without participants becoming overwhelmed by them.

Suggested further readings

De Meulder and Snoddon (2020); De Meulder et al. (2019); Hill (2012); Hou (2017); Kusters et al. (2020b)

19 Researching Language Attitudes Based on Historical Data

Anna D. Havinga and Andreas Krogull

19.1   Introduction

In the context of a volume on language attitudes research that is first and foremost written from a contemporary perspective, researching language attitudes based on historical data seems, in many ways, quite different, and perhaps more challenging, too. This holds true for research in the behavioural and social sciences, and particularly in the field of historical sociolinguistics, which is the focal point of this chapter. From a methodological point of view, the main differences between modern (socio-)linguistic and historical (socio-)linguistic research on language attitudes lie in the collection and availability of data as well as the nature of these data.[1] As Nevalainen and Raumolin-Brunberg (2017: 26) point out,

> researchers of the earlier varieties of a language cannot gather their data in the same way as a person studying present-day languages. The standard sociolinguistic methods, such as interviews and elicitation, are automatically excluded.

Indeed, the various methods of attitude elicitation presented in Parts 2 and 3 of this book, either directly through interviews (see Chapter 7), focus groups (see Chapter 8), and questionnaires (see Chapters 9 and 10), or indirectly through, for example, matched-guise techniques (see Chapter 12), are impossible when working with language data from the past. This results in different types of historical primary data, which are necessarily in written form for the simple reason that spoken language data have only become available since the advent of audio recordings in the second half of the nineteenth century.

Put in very basic terms, the methodological challenge in researching language attitudes based on historical data is that historical (socio-)linguists cannot ask individuals about their attitudes towards linguistic varieties or features, or elicit data otherwise. It is true that the analysis of the societal treatment of language, as discussed in Part 1 of this volume, also encompasses methods working with non-elicited data. These are nevertheless distinct from the types of non-elicited data at the disposal of historical (socio-)linguistics. Beal (2019: 11) remarks that

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1   While this volume as a whole aims to be as interdisciplinary as possible, these kinds of historical data have not yet received much attention in other disciplines that are concerned with language attitudes, which is why they are discussed here purely with regard to (historical) sociolinguistics.

'[r]esearchers studying contemporary communities of practice are able to discuss with or record conversations amongst members of these communities and thus obtain first-hand metalinguistic and metapragmatic comments', whereas it is much more difficult to reconstruct historical settings, as 'reflections and comments on the linguistic practices of these communities are often non-existent'. In fact, if certain historical individuals never commented on linguistic matters in written form, either explicitly or implicitly, their language attitudes will remain unknown. And even if they did comment on linguistic matters in some way, these written documents need to have survived and been preserved until the present day. The availability of historical data to collect for language attitudes research is thus restricted, and 'the fragments of the literary record that remain are the results of historical accidents beyond the control of the investigator' (Labov 1982: 20; see also Section 19.2 on issues concerning historical data). Broadly speaking, the fragments of this 'literary record', especially those produced by identifiable individuals, become even more fragmented the further back one goes in language history (see also Beal 2019: 20).

Another methodological challenge lies in the fuzzy boundaries between language attitudes and language ideologies in historical sociolinguistic research. As Kircher and Zipp (Chapter 1) explain, these two terms are different but also interrelated, which makes it difficult to strictly separate them. In a similar vein, Fuller (2018: 121–122) addresses the links between attitudes and ideologies, arguing the following:

> There is some overlap between language ideology and language attitude research in sociolinguistics. Language attitude research looks at ideas about language held by speakers; language ideology research focuses on the closely related societal Discourses and how they are circulated. Language attitudes and ideologies clearly interact and influence each other, and the lines between them may become blurred.

Fuller (2018: 122), however, highlights methodological differences, 'with language ideology research focusing more exclusively on discourse analytical methods and traditional language attitudes research employing methods that seek to elicit speakers' views, often via surveys'. It may be due to the complete impossibility of these elicitation methods and the relatively limited access to individual language users' views and (first-hand) comments that historical sociolinguistic research tends to focus more on language ideologies than language attitudes, at least in the narrower sense of the definition (see also Chapter 2 on discourse analysis of print media). Moreover, it seems that the methodological and theoretical lines between language attitudes and language ideology research are less sharply drawn in the historical framework than they are in research on present-day varieties. It is for this reason that both language attitudes and language ideologies are discussed in this chapter.

Previous research based on historical data clearly reflects this interconnectedness. In the *Handbook of Historical Sociolinguistics* (Hernández-Campoy and

Conde-Silvestre 2012), an entire thematic section of five chapters is dedicated to 'Attitudes to Language'. According to Conde-Silvestre and Hernández-Campoy (2012: 6), these contributions to their handbook show

> how attitudinal factors in connection to language variation and varieties, mainly on the part of the historical 'language managers' – those professionally involved with languages – have often led to the development of purism and prescriptivism, in obvious connection to standardization, (especially after the eighteenth century), and even to the creation and enforcement of language myths, particularly after the nineteenth century, once the 'scientific' study of languages was established. These constructs, frequently ideologically loaded, are often extended to the evaluation of language systems and may have an effect on sociolinguistic aspects such as the stigmatization of variants and varieties, their maintenance or loss, and even the status of their users.

Strikingly, in most of these chapters on 'Attitudes to Language', the term *language attitudes* itself is rare or even absent, or more broadly defined than in the introduction to this volume (see Chapter 1). Nonetheless, they altogether demonstrate that language attitudes and language ideologies in historical settings can hardly be studied separately. In his chapter titled 'Sociolinguistics and Ideologies in Language History', Milroy, for instance, talks about 'ideological attitudes' (2012: 571) and focuses on standard language ideology, describing how its impact is also noticeable in (earlier) accounts of language history. Watts refers to 'attitudes towards language' (2012: 588), although he links them with ideologies and language myths, arguing that there is 'an underlying "master myth" driving beliefs about and attitudes towards language', which he calls the 'myth of linguistic homogeneity'. According to Watts (2012: 589), language myths are different from language attitudes in that they 'are not only transferred to individuals socially; they are also culturally constructed through a history of transference that has made them the "cultural property" of a group'. Without going into further terminological detail, this definition of language myths adds another layer to the distinction between language ideologies and language attitudes made by Kircher and Zipp (Chapter 1: 6), who argue that 'one of the key differences between language ideologies and language attitudes is that ideologies constitute a community-level phenomenon – while attitudes are affected by a broad range of factors relating to specific individuals'. In contrast to language attitudes, which also comprise feelings and behaviours (Chapter 1), language myths, like language ideologies, constitute sets of beliefs.

The chapter by Langer and Nesse (2012) does not explicitly discuss language attitudes either but focuses on linguistic purism, which is 'one of the most noticeable areas of historical sociolinguistics since it very publicly deals with what speakers think of (particular) language use' (Langer and Nesse 2012: 607). Purist comments often reflect the attitudes of individuals but, at the same time, draw on existing language ideologies. These ideologies and other social dynamics at a community level need to be considered when investigating language attitudes based on historical data. In their reconstruction of prestige patterns in

the past, Sairio and Palander-Collin (2012: 626) argue that historical sociolinguists also have to address 'the reconstruction of attitudes of language users towards certain varieties and the reconstruction of relationships between groups of people and the social dynamics of the community', thus advocating an investigation of language attitudes within their social contexts. In the final chapter of the 'Attitudes to Language' part of the *Handbook of Historical Sociolinguistics*, Peersman (2012: 640) links the rise of written vernaculars in Medieval and Renaissance times to 'changes in mentality and language attitudes', but mainly describes stages in the vernacularisation process rather than language attitudes of individuals. Together, these five chapters illustrate that language attitudes are generally addressed in connection with community-level phenomena and wider held sets of beliefs, such as language ideologies and myths, in historical sociolinguistic research.

In addition to their inter-relatedness with language ideologies and myths, language attitudes are often linked to other key issues in historical sociolinguistics, many of which are again closely intertwined. At least in the European realm, which is the focus throughout this chapter, these topics touch upon the history of language standardisation (e.g. Deumert and Vandenbussche 2003), linguistic purism (e.g. Langer and Nesse 2012), and prescriptivism (e.g. Ayres-Bennett and Tieken-Boon van Ostade 2016), but also language policy and planning (e.g. Hawkey and Langer 2016; Rutten 2019).

Auer et al. (2015: 4) point out that historical sociolinguists, among other things, investigate 'how prestige, norms of correctness and speakers' attitudes towards specific forms may affect changes'. Central to these issues is the perception and evaluation of linguistic variability, be it language variation or multilingualism. According to Auer et al. (2015: 8), '[s]tigmatization, prescriptivism and notions of language correctness, ultimately consequences of value judgments about linguistic forms associated with particular registers or speakers, lucidly illustrate the eminent relevance of language attitudes, ideologies and myths for processes such as standardization'. Standardisation, as one of the 'main socio-structural factors that influence the formation and expression of language attitudes' (Chapter 1: 10), is primarily characterised by the 'intolerance of optional variability in language' (Milroy and Milroy 2012: 22). In other words, standardisation results from a generally negative attitude towards language variation (see also Joseph et al. 2020: 169–170). Since these attitudes are often expressed explicitly during standardisation processes, it is unsurprising that research on language attitudes is frequently connected to research on language standardisation.

19.2   Research Planning and Design

The fact that standard sociolinguistic methods cannot be used when examining historical data impacts on the research design. For every research project, it is important to formulate research questions that can be answered with

data possible to obtain. Since historical data cannot be generated with interviews or elicited otherwise, historical sociolinguists rely on data that are available, with the pool of data generally becoming smaller and patchier the further back in time one goes. This means that researchers need to know what material is available *before* devising clear research questions that can be answered with that material. For example, a broad research question such as 'What language attitudes were prevalent in the German-speaking area in the seventeenth century?' will be very difficult or impossible to answer due to a lack of data from the majority of the population.[2] Instead, a narrower question, such as 'What language attitudes were prevalent in the writings of seventeenth-century German-speaking grammarians?', needs to be formulated.

Grammars and other normative texts, such as spelling guides, dictionaries, or teaching and letter-writing manuals, are an obvious starting point for an investigation into historical language attitudes (e.g. Hickey 2010). They are printed, sometimes digitised, and often freely available. Particularly fruitful is the analysis of prefaces in grammars, which can provide insights into the grammarians' attitudes about linguistic varieties as well as their views about language more generally (see e.g. Havinga 2018: 47–93 or Offord et al. 2018: 461–517 for examples of such analyses). Ayres-Bennett's (2004) work on seventeenth-century French reveals attitudes towards non-standard usage expressed in the volumes of so-called *remarqueurs* like Vaugelas, noting that 'different authors of observations adopt different attitudes towards variation and give priority to different types of variation according to their own interests and purposes' (2004: 4). Putter (forthcoming) found comments in late medieval French teaching manuals aimed at Anglophone students that described French as 'sweet', 'beautiful', 'gracious', and 'fair'. Furthermore, the pre- or proscription of individual variants can reveal certain attitudes.

Normative texts are not the only source available to investigate language attitudes in historical contexts. Schoemaker and Rutten (2017) have shown that school reports can contain metalinguistic comments, indicating school inspectors' perception of and attitudes towards language and linguistic variation. Such comments are, however, 'relatively rare and seemingly random' (Schoemaker and Rutten 2017: 110). Private letters, diaries, and memoirs, too, may contain occasional references to language use, which may provide a glimpse of the writer's language attitudes. In particular, corrections of language use in such 'ego-documents', that is, '[t]exts in which an author writes about his or her own acts, thoughts and feelings' (Dekker 2002: 7), can reveal 'normative attitudes towards particular variants' (Rutten et al. 2017: 6). In addition, the way in which sociolinguistic situations are presented can be insightful. Lodge (2014) reveals

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2 Since literacy rates remained low before the eighteenth century, when compulsory elementary schooling was introduced in many German territories as well as in Austria, only insights into language attitudes by educated classes who wrote about their attitudes towards language (such as grammarians or other members of language societies) can be gained.

attitudes of an autodidact Parisian glazier, Jacques-Louis Ménétra, by focusing on Ménétra's 'narrative of the sociolinguistic situations in which he finds himself' (Lodge 2014: 204) rather than the use of language itself in the memoirs.

Coming back to more public texts, literary texts as well as prologues to literary texts or translations (in which authors discuss their choice of language) can reveal language attitudes, as Dearnley (2016) illustrates. Offord et al. (2018: 472–484) extract complaints about French in Russia from eighteenth-century comic drama. Language-mixing is often mocked in these plays and several Russian dramatists present the French language and culture as a threat to Russia as a nation by choosing French for certain characters. Offord et al. (2018: 482) point out that '[t]he sort of language attitudes expressed by eighteenth-century Russian dramatists in response to cultural westernization were by no means peculiar to Russia, nor was it only in Russia that comic drama proved a convenient vehicle in which to express them'. When looking at literary texts to investigate language attitudes, plays may, therefore, be the best place to start.

Similar attitudes towards the use of French can be found in eighteenth-century British reviews, newspapers, and periodicals. From these and other sources, Beal (2012) extracts various attitudes and concludes that 'only the notion that the use of French is seditious and/or unpatriotic is peculiar to this time of extended hostility between Britain and France' (Beal 2012: 153). Given that many newspapers and periodicals are preserved, with some of them digitised (and searchable), they constitute a valuable source to investigate language attitudes.

Other fruitful data are statistical accounts of surveys that include questions on language. Millar's (2000) analyses of returns to the *Statistical accounts of Scotland*, published in the 1790s (account 1), 1830s/1840s (account 2), and 1940s (account 3), reveal overt (e.g. when the 'tone' of certain varieties is described as 'rough') as well as covert language attitudes (e.g. when Scots is associated with wisdom) of the ministers who replied. There are, however, limitations to such surveys, as Millar (2000: 171–172) points out: Their usefulness depends on what questions are asked, and replies may not always be representative or truthful.

In summary, a whole array of text genres (normative texts, school reports, ego-documents, literary and journalistic texts, as well as statistical accounts) can be utilised to study language attitudes in the past. However, all these sources have some drawbacks, and none of them is perfect. Most importantly, there is no guarantee that language attitudes can be found in each of these text genres and, if they can, they are often only attitudes of a small group of educated people. In order to deal with such 'imperfect data' (Janda and Joseph 2003: 14), clear research questions, a systematic approach, and definite selection criteria for materials are crucial. Nevalainen and Raumolin-Brunberg (2017: 26) provide assurance that the dependence on supposedly 'bad' data can be compensated by 'systematicity in data collection, extensive background reading and good philological work'. Rather than investigating all sources that may contain language

attitudes, the most promising text types should be targeted. In comparison to contemporary researchers, historical (socio-)linguists usually have less choice in what to target as they rely on material that has been preserved. Which texts are particularly promising can be determined with background reading, for example on the socio-political context, literary traditions, language standardisation, or surveys that were carried out. Background reading also helps to choose a suitable time period for investigation. Metalinguistic comments may, for example, be more frequent during language-standardisation or nation-building processes. The texts chosen for investigation must then be analysed carefully. Implications for data analysis and interpretation when working with historical data are addressed in the following section.

19.3   Data Analysis and Interpretation

A very useful method for examining language attitudes and ideologies in historical data is discourse analysis (see Chapter 2, as well as Chapter 4, on discourse analysis of contemporary data). Every text can be conceived of as 'an instantiation of a discourse, and through discourse sets of beliefs about various natural or social phenomena are constructed' (Watts 2012: 587). In other words, messages are not transmitted neutrally in discourse; instead, discourse represents a particular understanding of certain aspects of the world (Griffin 2013: 93). Griffin (2013: 99) explains that the purpose of discourse analysis is to reveal how a text's linguistic features (lexical, grammatical, semantic) 'set up and replicate particular world views', thus linking language use to sociocultural practice. While discourse analysis is a method that takes different forms, depending on the research project (Griffin 2013: 97), no discourse analysis will ever be complete as it is infeasible to analyse all textual features of a text (Griffin 2013: 101). This means that researchers not only have to be selective about the data they use but also regarding the textual features they analyse. This selection is, of course, based on their agenda, which needs to be made transparent, reflecting on and explicitly describing the choices made (Griffin 2013: 101).

When using discourse analysis as a method, researchers can either take a qualitative or quantitative approach. Using a qualitative approach, the researcher will read the text carefully, annotate it, and extract, for example, language attitudes or ideologies. A quantitative approach, on the other hand, involves counting certain textual features to, for example, uncover key concepts of a text (Griffin 2013: 105). Software programmes can be used to find these features or to annotate (or code) texts. However, the data still need to be interpreted by the researcher. Also, any annotation or coding 'already imposes an interpretation on the text as well as the boundaries of that interpretation' (Griffin 2013: 105). This is again something that the researcher needs to reflect on and be transparent about.

Another method to consider is corpus linguistics, that is, analysing a collection of texts in machine-readable form with the help of software tools. However, while using corpus-linguistic approaches is common in historical (socio-) linguistics, 'it is not clear how the phenomena of speaker attitudes, beliefs, and intention can be dealt with in any corpus-based approach' (Cantos 2012: 101). Watts (2012: 604), too, believes that attitudes and ideologies are easier to detect when 'comb[ing] through the corpus by hand' rather than using keyword searches. Using keyword searches can be problematic for several reasons: (1) not all metalinguistic texts (or similar historical sources) are digitally available (and transcribing them is a time-consuming process); (2) not all digitised texts are keyword searchable or OCR-compatible, depending on factors such as scripts, fonts and typefaces, or the quality of the scans; and (3) contemporary spelling variation needs to be taken into account when using keyword searches. While it would, therefore, be unwise to solely rely on keyword searches in a study of language attitudes in the past, corpus-linguistic approaches can help to identify particular texts to analyse further. For example, the words *language* or *dialect* could be entered in a keyword-searchable platform of historical newspapers in order to identify passages discussing linguistic varieties. Of course, the researcher will have to sift through the search results to identify relevant passages, which is a time-consuming process but quicker than (manually) reading a range of newspapers.

Although corpus-linguistic methods may not be ideal to detect attitudes and ideologies in historical texts, they are the preferred method to examine language usage in representative samples of sources. To what extent language attitudes, ideologies, and norms affect language usage is one of the central issues in historical sociolinguistic research (see e.g. the edited volume by Rutten et al. 2014). Corpus-linguistic approaches and quantitative analyses can be used to answer this question (as shown in the case studies below). This does, however, not mean that language attitudes can be extracted directly from a comparison between norms and usage. Even if a specific norm is adopted in writing, it remains unknown how the writers felt about this norm. This means that discourse analytical methods need to be used to get more direct insights into language attitudes. The following case studies exemplify how such methods can be employed.

19.4 Case Study: Attitudes towards German Varieties in the Eighteenth Century

As mentioned in the introductory section to this chapter, it is difficult and not necessarily appropriate to strictly separate language attitudes from language ideologies when working with historical data. Language attitudes should be studied within wider-held sets of beliefs and their socio-political context in order to understand their origins and impacts. This brief case study

focuses on language ideologies and attitudes towards two German varieties (Upper German or UG, and East Central German or ECG) in the eighteenth century and their consequences for language use in Austria (for a more comprehensive account, see Havinga 2018).

As Section 19.2 explains, normative texts offer a good starting point for an investigation of language attitudes in the past. In this case study, I (the first author) apply qualitative discourse analytical methods to quotations (see Examples 1 and 2) from individuals who participated in the eighteenth-century language norm discourse in order to extract specific language ideologies and attitudes. While the quotations presented here can only provide insights into the attitudes of a limited group of educated people who, to some extent, incidentally commented on language (see above), my quantitative analyses of several UG variants show that they had an impact on written language use in Austria (Havinga 2018).

As mentioned above, metalinguistic comments are relatively common during language-standardisation processes. The eighteenth century can be described as a century of codification in the standardisation of German, making it a particularly suitable period to investigate language attitudes. As a result of the sixteenth-century selection of two German varieties that became commonly used in printing (*gemeines Deutsch* based on UG varieties and *Lutherdeutsch* based on ECG varieties), a discourse on what variety is correct and which variants should be codified in grammars emerged in the seventeenth and continued in the eighteenth century (Mattheier 2003: 216–219). The publication of numerous grammars in the eighteenth century contributed to this discourse and to the emerging ideology of a correct language (*Sprachrichtigkeitsideologie*; von Polenz 2013: 144–145). During the Enlightenment, this ideology was linked to the belief that language, the ability to think, and socio-economic as well as academic progress were closely connected (Wiesinger 2008: 263). In his *Kurzgefasste Deutsche Sprachlehre* [*Brief German Grammar*] (1758), Friedrich Wilhelm Gerlach (1728–1802), a history teacher from Thuringia who participated in the eighteenth-century language norm discourse, makes this connection explicit (see Example 1, my translation).

(1)   Je ordentlichere, und je mehr Worte also, eine Sprache hat, desto vollkommener und besser können die Menschen dänken, von denen sie geredet wird. [...] Folglich soll eine jede Menge der Menschen die Fehler ihrer Sprache verbessern [...] und selbe in der Richtigkeit zu erhalten, sich befleißen. [...] Es ist ein Zeichen, daß Unwissenheit, unrichtige Gedanken, und kleine Geister in einem Land seyn: wo der vorige Satz nicht beobachtet wird. (Gerlach 1758: 2–3)

The more proper, and so the more words a language has, the more complete and better the people by whom it is spoken can think. [...] Consequently, a great many people should correct the mistakes of their language [...] and work hard on keeping it correct. [...] It is a sign that nescience, incorrect thoughts and small minds are in a country, where the previous sentence is not obeyed.

In Example 1, Gerlach connects the ability to think with the number of ('proper') words a language has, urging people to use language 'correctly' in order to avoid being perceived as ignorant and unintelligent. As a result of such ideologies, the use of 'correct' language was seen as a powerful tool to advance academically and socio-economically. 'Correctness' was associated with ECG, which was used in Saxony, a cultural and commercial centre in the eighteenth century. The most influential eighteenth-century German grammarians considered ECG (also known as *obersächsisches Deutsch* 'Upper Saxon German') the 'best' German variety. Johann Christoph Gottsched (1700–1766), who – along with Johann Christoph Adelung (1732–1806) – can be described as the most prominent German language authority of the eighteenth century (Rössler 1997: 29–30, 86–87), expresses the perceived superiority of this variety clearly in Example 2, taken from the fifth edition of his *Grundlegung einer deutschen Sprachkunst* 'Foundation of a German Grammar' (1748, 5th ed. 1762, my translation).

(2)   Nach wem wird man sich also richten sollen? Aber es bedarf dieser Frage gar nicht. Ganz Deutschland ist schon längst stillschweigend darüber eins geworden. Ganz Ober= und Niederdeutschland hat bereits den Ausspruch gethan: daß das mittelländische, oder obersächsische Deutsch, die beste hochdeutsche Mundart sey: indem es dasselbe überall, von Bern in der Schweiz, bis nach Reval in Liefland, und von Schleswig bis nach Trident in Tyrol, ja von Brüssel bis Ungarn und Siebenbürgen, auch im Schreiben nachzuahmen und zu erreichen suchet. (Gottsched 1762: 69)

        So who should one conform to? But this question is not needed. All of Germany has long implicitly agreed on it. All of Upper and Lower Germany has already expressed: that the Middle, or Upper Saxon German, is the best High German variety: as attempts are made everywhere to imitate and to successfully mimic it, including in written form, from Bern in Switzerland, to Reval in Liefland, and from Schleswig to Trident in Tyrol, from Brussels to Hungary and Transylvania.

It is not unusual for grammarians to present their own views and language attitudes as general facts. In reality, several grammarians, such as Carl Friedrich Aichinger, Johann Siegmund Valentin Popowitsch, Johann Jakob Bodmer, Johann Jakob Breitinger, Friedrich Carl Fulda, and Johannes Nast questioned the supremacy lent to ECG and advocated the use of UG varieties instead (Faulstich 2008: 97–105, 166–173). Grammarians from northern German areas, such as Johann Friedrich Heynatz and Johann Friedrich Zöllner, raised concerns too (Faulstich 2008: 173–176).

Nevertheless, the positive attitudes towards ECG, which Adelung (1781: 18, § 32, my translation) described as a variety that has been 'cultivated and refined by taste, the arts and sciences' (in contrast to what Adelung 1781: 18, § 32 calls the 'soft, slithery, and short language of Low German' and the 'rough and pompous UG'), led to *verticalisation* (Reichmann 1988), that is, a hierarchical ranking of German varieties, with ECG on the top. Even Empress Maria Theresa, who ruled the Habsburg Empire from 1740 to 1780, described the language of Austrians as

'very bad' in a letter to Gottsched's wife Luise Adelgunde Victoria Gottschedin, who, together with her husband, was received as guest by Maria Theresa in 1749.[3]

These attitudes had far-reaching consequences, particularly since they emerged during a time of educational reform. Maria Theresa, who believed in the ideologies described above, commissioned Johann Ignaz von Felbiger (1724–1788), an educationist working for Frederick II in Prussia, as an advisor for her school reform plans (Engelbrecht 1984: 101–102). The school policy that Felbiger devised and published in 1774 introduced compulsory elementary education as well as standardised textbooks, timetables, and teaching methods (*Allgemeine Schulordnung* 1774). These textbooks were based on the ECG norms prescribed by Gottsched (Rössler 1997: 71–72). Consequently, ECG variants were disseminated in Austria, while common UG variants were stigmatised. My quantitative analyses of four UG features reveal that this school and language reform contributed to the 'invisibilisation' of UG variants, not just in textbooks but also in handwritten texts (Havinga 2018). The term *invisibilisation* refers to a process of implicit or explicit stigmatisation, which prevents the use of certain variants or varieties in writing (Langer and Havinga 2015). Such stigmatisation is based on community-level language ideologies but also language attitudes of individuals – particularly grammarians but also more powerful people, such as Empress Maria Theresa. The case study outlined here shows the impact language ideologies and attitudes can have on language use. However, it is important to note that this impact is (at least for now) mostly restricted to writing in Austria. UG variants continue to be used in spoken as well as informal written language and remain salient features of Austrian German.

19.5   Case Study: Attitudes towards Standards, Norms, and Variation in Eighteenth- and Nineteenth-Century Dutch

This brief case study is based on research conducted by the second author (see Krogull 2018 for a comprehensive discussion) as part of a larger research project on Dutch language planning and standard language ideology in the decades around 1800 (see Rutten 2019). As mentioned above, language attitudes and language ideologies are closely intertwined in historical sociolinguistic research, and this case study, too, only indirectly touches upon language attitudes in the strict sense. More directly, it focuses on the interrelated topics of language standardisation, prescriptivism, and language policy and planning.

In the Netherlands, the turn of the nineteenth century saw the introduction of a national language policy aimed at spreading an officially standardised variety of

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3 German original, as cited in Wiesinger (2008: 260): 'Wir Oesterreicher haben eine sehr schlechte Sprache'.

Dutch across the entire population. Against the background of the ideological equation of nation and language, emerging across late eighteenth-century Europe, the Dutch mother tongue was increasingly conceptualised as a unifying symbol of the (allegedly) homogeneous Dutch nation. Negative attitudes towards linguistic variability, as typical of language standardisation processes, were expressed by grammarians and other language commentators. Calling for a uniform variety of Dutch for the benefit of the nation's unity, they particularly advocated the suppression or even conscious elimination of traditional dialects. These *platte taalen* 'vulgar languages' were considered to be flawed versions of the only 'real' Dutch language, and, according to some commentators, they constituted an impediment to the education of the youth and true enlightenment of the people.

Linguistic matters became a national concern around 1800, as did educational matters. The Dutch Minister of National Education was assigned the task to 'take all possible measures to purify and cultivate the Dutch language' (*Instructie voor den Agent van Nationale Opvoeding* 1798: 6, my translation) by regulating its spelling and grammar, which clearly mirrored the purist and prescriptive attitudes of 'historical "language managers"' (Conde-Silvestre and Hernández-Campoy 2012: 6; see Section 19.1), but also the rise of standard language ideology. The call for linguistic homogenisation led to the first official codification of Dutch on behalf of the government. The so-called *schrijftaalregeling* 'written language regulation' comprised two reference works: a national orthography (Siegenbeek 1804), and a national grammar (Weiland 1805), laying down the norms that were strongly recommended (though not obligatory) for use in the educational and administrative domains. This national language policy and top-down codification constituted a crucial intervention in the sociolinguistic situation of the Netherlands, which was now split into a diglossic hierarchy of standard versus non-standard Dutch. But how did these developments affect the body of language users (see also Rutten et al. 2020: 260–264)?

The central research objective of this study was to investigate whether and to what extent the dissemination of standard language norms exerted influence on actual language use. To put it slightly differently, I sought to measure acceptance as the actual spread of the national standard variety in the population at large (see also Haugen 1966: 933). The interpretation of acceptance as an attitudinal phenomenon in the past is challenging, though, as it requires linguists working with historical data 'to look into the minds of historical players, while we also know that attitudes and behaviour do not necessarily correspond' (Rutten 2019: 217). However, keeping in mind that hasty interpretations about language attitudes need to be prevented, acceptance in a historical scenario of standardisation like the Dutch case around 1800 can still be turned into an empirical research question.

In line with historical sociolinguistic research on the interplay between norms and usage (e.g. Rutten et al. 2014; Anderwald 2016), the study illustrated here combined methods using quantitative and qualitative data in order to investigate the effectiveness of prescriptive norms on actual usage. The qualitative part

focused on contemporary metalanguage, based on an exhaustive account of around thirty normative works published in the Netherlands in the eighteenth and early nineteenth century. While Siegenbeek's (1804) orthography and Weiland's (1805) grammar served as the obvious points of reference, it was important not to treat these in isolation and, instead, place them in the wider context of the normative tradition. In fact, the vivid metalinguistic discourse throughout the eighteenth century gradually paved the way for the first nation-wide and official codification. The collection of normative texts that I consulted for this study comprised spelling guides, grammar books, and more general linguistic treatises. The majority of texts was digitally available, though not always keyword searchable, which required manual reading in order to (systematically) extract pre- and proscriptions of individual linguistic features and variants. Metalinguistic comments, for instance in the prefaces, could also reveal more general attitudes and ideologies prevalent in the language community (see Sections 19.2 and 19.3).

The quantitative part focused on patterns of variation and change in language usage, based on a corpus of eighteenth- and nineteenth-century Dutch that I (the second author) specifically designed and compiled to assess the effects of the national language policy on actual practice. My diachronic multi-genre corpus (*Going Dutch Corpus*) contains more than 420,000 words of authentic language use in different text sources, from before (1770–1790) and after (1820–1840) the 'written language regulation' took effect. As for genre, both handwritten ego-documents (private letters; diaries/travelogues) and printed publications (newspapers) were included. All texts in the corpus were coded for region and, in the case of ego-documents, also for gender, allowing for a fine-grained assessment of language variation and change.

A selection of eight linguistic features, covering both spelling and grammar, was then analysed by following a systematic methodological procedure, in order to ensure maximum comparability between all variables. At the level of norms, it turned out that many pre- and proscriptions by Siegenbeek (1804) and Weiland (1805) were not all that innovative or radical, but rather grounded on choices already made by their predecessors. The major novelty of these normative works, as opposed to the more individual grammarians' attitudes and norms in the eighteenth-century tradition, was their strong political and ideological backing, and their implementation in the national school system.

At the level of usage, the corpus-based findings revealed that Siegenbeek's orthographic norms were largely adopted in the first half of the nineteenth century, where variant reduction in the direction of the national standard norms was clearly visible across genres, regions, and both genders. Grammatical prescriptions, however, were followed to a much lesser extent, which could partly be explained by the complexity and inherent variability of morphosyntactic features in usage. Interestingly, in contrast to the relatively straightforward pre- and proscriptions for spelling, Weiland acknowledged (stylistic) variation to a certain degree, as in the case of relativisation (Krogull et al. 2017: 165–168).

At least for prescribed spelling variants, the results signalled a changing attitude among the community of Dutch language users (Rutten 2019: 277), one that is generally positive towards standard language norms imposed 'from above'. However, it should be stressed again that the link between behaviour and attitudes is not reliable, and language attitudes cannot be deduced directly from these developments in actual usage. What is striking, though, is that the remarkable convergence towards official (spelling) prescriptions could not only be observed in public texts (newspapers), but also in the private sphere (ego-documents, and even in letter writing), where the use of standard variants was not formally required. This suggests that, in addition to factors such as awareness of, or exposure and access to standard norms, a favourable attitude towards these variants might have played a role in the widespread acceptance of the newly devised national standard variety of Dutch.

19.6   New or Emerging Trends

It should have become clear in the previous sections of this chapter that language attitudes research itself is still an emerging field in historical sociolinguistics. Although a wide range of (written) text sources and both quantitative and qualitative approaches have been utilised to detect language attitudes in the past (see Sections 19.2 and 19.3), an overarching methodological framework for language attitudes research based on historical data is yet to be developed.

However, there seems to be a more general shift from traditionally monolingual language histories, often related to language standardisation and nation building, and focusing on ideologies about and attitudes towards standard and non-standard varieties of an official/national language, towards a more multilingual perspective on language history (see also Chapter 17, for language attitudes in present-day multilingual communities). In historical sociolinguistics, a growing scholarly interest in multilingual and contact settings has emerged over the past three decades (e.g. Hüning et al. 2012). Investigating settings of multilingualism and language contact in the past implies that researchers also address questions relevant to language attitudes research, such as the following listed by Rutten et al. (2017: 6):

> How do the speakers involved perceive each other? What attitudes are triggered in the contact situation? What beliefs and ideologies underpin their perceptions and attitudes? What planning measures are taken to coordinate the contact? Which linguistic forms and varieties are typically promoted through policy, and which are condemned?

While societal multilingualism in (European) language history has been on the research agenda since the 1990s, much less is known about 'the personal experiences of historical actors, their attitudes and views, and their daily practices in a

multilingual environment' (Rutten et al. 2017: 8), which, again, could be partly explained by the limitations of data of historical individuals (see Section 19.1).

The attitudes and ideologies surrounding historical situations of multilingualism and language contact have been investigated in a number of recent and ongoing projects. One particular case in point, which has attracted a fair amount of interest in recent years, is the phenomenon of historical *francophonie* (e.g. Rjéoutski et al. 2014), that is, the widespread practice of French as a second or foreign language in European language communities outside France. Focusing on the specific case of French in eighteenth- and nineteenth-century Russia, Offord et al. (2018: 461–517) dedicate an entire chapter to 'Language attitudes' (see also Section 19.2), in which they examine Russian views and debates on linguistic matters and national identity, and how the Franco-Russian bilingualism of the elite was perceived.

In the case of historically Dutch-speaking areas, the phenomenon of 'frenchification', which describes the often pejorative attitudes towards the influence of the French language, is critically examined by Frijhoff (2015) and Rutten et al. (2015). The latter discuss both contemporary metalinguistic discourse on the alleged frenchification of Dutch as well as linguistic aspects in the eighteenth and nineteenth centuries. Taking a more systematic and empirical approach, the historical Dutch–French language contact situation, including the attitudes and ideologies it evoked, is also at the heart of ongoing research projects in historical sociolinguistics.[4]

To summarise, using historical data to research language attitudes presents considerable challenges since there is no direct access to people's attitudes towards language. In contrast to modern (socio-)linguists, historical researchers cannot elicit data, resulting in a reliance on the (written) data available. The data at our disposal are inevitably skewed and fragmented: More texts produced by an elite minority are accessible, while many other texts have not survived until today. Nevertheless, it is possible to investigate language attitudes based on a range of historical data. Such investigations usually address both language attitudes and ideologies within wider socio-political contexts and processes, such as nation building and language standardisation, with more recent research being increasingly conducted in a multilingual rather than a monolingual framework. This treatment of language attitudes in connection with ideologies and wider socio-political processes is not surprising, given that language attitudes 'stand proxy for a much more comprehensive set of social and political attitudes' (Milroy and Milroy 2012: 45–46).

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4 For instance, the research project *Pardon my French? Dutch–French Language Contact in the Netherlands, 1500–1900* (Leiden University 2018–2024), funded by the Dutch Research Council (NWO), seeks to provide a more systematic empirical analysis of Dutch–French contact phenomena, including the vibrant metalinguistic discourse about the presumed frenchification of Dutch.

The study of language attitudes based on historical data remains important as it provides insights into people's views and feelings about linguistic matters while also uncovering origins of and explanations for these views and feelings. This, in turn, helps us to understand language variation and change as well as wider socio-political developments. In order to fully understand the dynamics of language attitudes and ideologies in present-day societies, we need to research their roots in the sociolinguistic past.

Suggested further readings

Beal (2012); Millar (2000); Milroy (2012); Offord et al. (2018); Watts (2012)

20 The Use of Priming in Language Attitudes Research

Abby Walker, Katie Drager, and Jennifer Hay

20.1 Introduction

20.1.1 Defining Priming

Priming is a term that is used widely in cognitive and social psychology, psycholinguistics, and – increasingly – sociolinguistics. As might be predicted for a term that is used by multiple research communities, the concept to which it refers can vary widely. In its broadest sense, priming refers to a process through which exposure to a context or stimulus affects cognition and/or behaviour (Bermeitinger 2015: 17). Some scholars (e.g. McNamara 2005: 55) differentiate between *automatic priming*, which occurs quickly and effortlessly, and *strategic priming*, which is a slower process that involves some level of cognitive effort, so that it can be mitigated by increased workload and stressors (Schneider and Chein 2003: 529). Despite being slower and more effortful, strategic priming is still considered to be largely implicit (Bermeitinger 2015: 27–28), and, for example, can happen in cases of subliminal priming (e.g. Holland et al. 2005, see Section 20.2).

Depending on the theory, priming research in psycholinguistics focuses on pre-activation (Collins and Loftus 1975) or inference (Kleinschmidt et al. 2018); the discussion here is limited to a pre-activation account since this is consistent with the theoretical framework the authors work in and is the most widespread account. In addition, this chapter concentrates on the most common type of priming research paradigm, which has some or all of the following characteristics (from Doyen et al. 2014: 14):

1. Experimenters present a prime stimulus, either on a computer display or as part of a task that a participant completes;
2. The prime activates an internal representation;
3. The activated representation influences other representations; and
4. Those other activated representations lead to behavioural changes.

A commonly assumed mechanism connecting steps 2 and 3 is that experience or ideologically based links exist between items or concepts, and activation of one leads to activation of the other. For example, *apple* and *orange* are conceptually related (they are both co-hyponyms of the hypernym *fruit*), while *apple* and *hammer* are not obviously connected. When someone hears or sees *orange*,

313
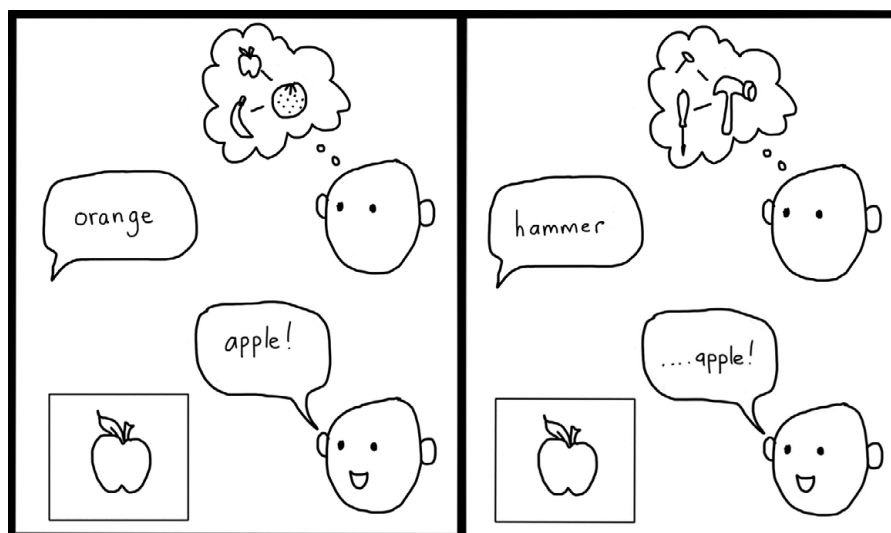
Figure 20.1 *Activation spread: Participants will be faster at recognising* apple *following* orange *(a) than following* hammer *(b)*

apple receives some spreading activation through its connection to *orange*, while if they hear or see *hammer*, *apple* receives no such activation. If the *target*, *apple*, is shown to participants after the *prime* (*orange* or *hammer*), the effect of the spreading activation will be evident: After a participant hears *orange*, activation spreads to semantically related *apple*, and after a participant hears *hammer*, activation does not spread to *apple* (Figure 20.1). Recognition of the apple is fastest if it is pre-activated by hearing *orange*. In this way, *orange* is said to prime *apple*. Priming often surfaces as faster recall or recognition relative to the baseline determined using unrelated primes (in this case, *apple* following *hammer*), but can also result in a response bias towards items associated with the prime.

In general, priming is assumed to involve exposing participants to items or contexts that influence responses to other items *incidentally* (Logan 1980). Note that this assumption actually excludes the way in which the term *priming* is sometimes used in the sociolinguistic literature, where it increasingly refers to cases in which the experimenter provides non-incidental information relating to a target, sometimes in a time-synchronised manner. For example, Munson et al. state that '[p]revious research has shown that listeners' identification of English anterior sibilant fricatives changes depending on whether they are *primed* to believe that the talker is a woman or a man' (2017: 1073, emphasis added). In the previous research they are referring to (Strand and Johnson 1996), talker gender is manipulated through the use of video and is not clearly incidental in that it

overtly affects the listeners' expectations of the speaker, leading to changes in how a target is perceived. In addition, the talker in the video is shown producing the auditory stimuli at the same time as the auditory stimuli. Therefore, cognitively, the effect is akin to multisensory or multimodal integration (e.g. Rosenblum 2008), such that cues to talker gender are integrated with acoustic cues to result in the perception of the fricative. For the purposes of this chapter, the discussion of priming is restricted to work that fits within the paradigm outlined in steps 1–4 above, in which the prime is incidental to, and presented prior to, the item or concept that requires the behavioural response, and which does not manipulate overt expectations about a relationship between the stimulus in 1 and the representations in 4.[1]

It should also be noted that not all priming is *positive*, or facilitative; there is also *negative priming*, sometimes called inverse priming, anti-priming, reverse priming, or a contrast effect. Negative priming occurs when exposure to a prime inhibits access to an associated representation. In one negative priming paradigm, participants are exposed to a *prime distractor* (which they are instructed to ignore), and a *prime target*. They are then subsequently tested on a *probe target*, which is the same as, or related to, the distractor. For example, participants could be shown the letter string SDS and be asked to select the centre letter. In this prime, the distractor is S and the target is D. In the following probe trial, participants could be shown FSF, where they now must select S. Having just ignored S in the previous trial, they are slower to respond than they would be had S not appeared in the prime as a distractor. While there are many theories about the mechanism behind negative priming, one account is that when first exposed to the prime, the prime distractor is temporarily activated, but on selection of the prime target, the distractor is suppressed, or inhibited. This inhibition results in slower responses when the probe target, which is identical to the prime distractor, is presented (see Frings et al. 2015 for a review).

20.1.2   Types of Language-Related Priming

In regard to language research, priming studies are often used to probe the underlying connections between mental representations of language components (e.g. connections between words). If a given representation is activated, what types of related representations are also activated? What can be learned about the cognitive representations themselves? Three commonly investigated conceptual relationships are similarities in semantics, similarity in form, and social linkages.

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1 Despite being outside of the scope of this paper, it is certainly worth exploring how information-integration impacts language attitudes ratings. For example, Carmichael (2016) shows that listener responses to speech samples are impacted by where they are told the speaker is from, and Walker et al. (2014) show that the impact of a variable on speaker evaluation depends on the dialectal frame it is presented in.

In *semantic priming*, exposure to a word (e.g. *doctor*) results in faster recognition of a semantically related subsequent word (e.g. *nurse*, see Neely 1991 for a review). Priming that involves the activation of a similar form (as opposed to a conceptual connection) to a previously encountered one is known as *form-based priming* (Goldinger et al. 1992). For example, the same letter (in a visual task) or same phoneme (in an auditory task) could link a prime-target pair (e.g. *song-sit*). A third type of priming is called *social priming*. Social priming involves the activation of social concepts, ideas, and attitudes that are socio-indexically linked to linguistic forms. Exposing someone to a social prime can therefore lead to differences in observed behaviour with regards to the linguistic form. For example, there is evidence that regionally associated stuffed toys (i.e. toy kangaroos associated with Australia) may affect what New Zealand listeners report hearing in a perceptual matching task, shifting their answers to something more consistent with the primed regional dialect (Hay and Drager 2010).[2]

A final form of priming is *identity priming*, or repetition priming, where exposure to an item (e.g. a word) speeds access to that item in subsequent trials (e.g. Forster and Davis 1984). While this is not as clearly incidental as the other three types of priming, it could still fit within the priming paradigm outlined in steps 1–4 above since identity priming could simply involve the pre-activation of the same representation(s) activated in 2 without invoking step 3 or 4.

20.2   Research Planning and Design

Methodologically, priming can be implemented in a number of ways. First, the level of priming can vary, with the different levels referred to as macro, midi, or micro priming (Bermeitinger 2015: 20–22). *Macro priming* investigates the impact of some global, contextual factor on participant's behaviour and/or feelings, and is most often seen in social psychology. The nature of the prime, the duration for which it is experienced, and the task itself all vary widely across studies, but there is generally an aspect of long-term priming involved, and as such, the mechanisms behind priming effects are likely qualitatively different than effects seen in short-term priming, as presented in Figure 20.1 (Wentura and Rothermund 2014). A good example of macro priming is Godden and Baddeley (1975), who compared item recall when the items were learned and tested across two different environments: on land or underwater. They found that participants

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2 Social priming research has been critiqued for being difficult to replicate, and as having dubious psychometric qualities (see Molden 2014 for a discussion); indeed, Walker et al. (2019) were unable to replicate Hay and Drager's stuffed toy study with an Australian population. However, some of the issues surrounding social priming do not necessarily reflect a problem with the concept itself, but the fact that social priming studies usually involve macro priming and have a between-subjects design (see Rivers and Sherman 2018, and Section 20.2 for a discussion of these terms), which results in more noise in the data and weaker statistical power. These methodological concerns are addressable, and should not stop researchers from using social priming if useful in answering a specific research question.

had better recall of items when tested in the same environment in which they were learned. In this example, the whole experimental environment served as the prime, and priming lasted for the duration of the experiment. Godden and Baddeley (1975) is an example of an experiment that uses a *within-subjects* design, where effects of priming are calculated by comparing the same participants' behaviour across different conditions, and/or in response to different stimuli. Unlike with other levels of priming (see below), in the case of macro priming this may involve multiple experimental sessions. Thus, most studies that use macro priming (e.g. Hay and Drager 2010) use a *between-subjects* design, where effects of priming are calculated by comparing across different participants who were exposed to different primes, or participants who were exposed to a prime versus participants who were not exposed to a prime.

At the other end is *micro priming*, which is the most common form of priming used in cognitive psychology. With this technique, specific primes and targets are paired and usually (though not necessarily) presented in fairly quick succession (see discussion of stimulus onset asynchrony below). Their presentation counts as a single trial. For example, a participant might respond to 200 prime-target pairs in an experiment, and each of them is generally treated as an independent instance of priming (e.g. Sumner and Samuel 2009). *Midi priming* refers to something in between, where specific concepts are primed, but not in exact prime–target pairings. For example, in Walker (2019), participants read regionally 'neutral' words that were distributed across four larger wordlists that were blocked by regional themes (United Kingdom vs. United States). The experiment tested whether the pronunciation of the neutral words was impacted by being in the same block with the regional words (more British or American English-like), but each neutral word was not paired with a prime per se. Given its dominance in the literature, and its usefulness in exploring relationships between concepts or items (and therefore exploring relationships between language and attitudes), this chapter focuses almost exclusively on micro priming.

The modality of primes and targets can also vary. Linguists commonly use visual modes (pictures, video, or written words) and auditory modes (a recording of someone saying a word), but primes in other modalities, like olfactory primes (Cook et al. 2015) and tactile primes (Frings et al. 2011), are possible. Modes of primes and targets can also differ from each other, which is known as *cross-modal priming*. This could involve, for example, presenting a prime visually and a target auditorily (e.g. Chioti 2019), or vice versa (e.g. Clopper and Walker 2017). Which modes the researchers choose will obviously depend on their research question and the tasks participants are engaged in. However, it is worth noting that previous research on the visual priming of concepts provides evidence that photos are more effective and/or quicker for participants to process than words. For example, showing a picture of someone vomiting will be processed more quickly than showing participants the word *vomit* (Carr et al. 1982).

Timing is critical in priming studies. First, primes can be shown to participants supraliminally or subliminally (see Kouider and Dehaene 2007 for a critical

review). *Subliminal priming* prototypically occurs when a visual prime is presented to participants so quickly that it does not reach the threshold of perception. This means that while participants are not able to register what they saw, the image still impacts their responses. The durational value of the visual perception threshold differs across stimuli types, individuals, and even within an individual, but is usually under 50 ms. The term *masked priming* is used to denote a common type of subliminal priming where the prime image is forward (preceding) and/or backwards (following) masked by a pattern such as #######, which reduces the chances of participants perceiving the prime. Similarly, auditory masking can be used to subliminally present an auditory prime (Kouider and Dupoux 2005). Semantic and identity priming have been observed using subliminal methods (Fowler et al. 1981; Forster and Davis 1984; Kouider and Dupoux 2005). However, it is worth noting that compared to supraliminal priming, subliminal priming lowers the chances of observing an effect and, when an effect is observed, it tends to be weaker and not last as long (e.g. Greenwald et al. 1996). Therefore, unless subliminal cognitive mechanisms are a key component of the research question, *supraliminal* priming is preferred, in which the prime is presented for a time span above the threshold of perception.

The duration of time between the prime and target is another important factor. When measuring duration between stimuli, two commonly used measures are the *stimulus onset asynchrony* (SOA), where duration is taken between the onset of the prime and the onset of the target, and the *inter-stimuli interval* (ISI), where duration is calculated between the offset of the prime and the onset of the target. Facilitation and inhibition tend to be most strongly observed when the ISI is between 150 and 500 ms (Rosch 1975; Neely 1977; Spencer and Wiley 2008), whereas attention-driven processes (i.e. those that are non-automatic) are generally observed with ISIs over 500 ms. Activation caused by priming can recede over time, and for tasks that involve subliminal priming, the patterns can counterintuitively reverse when the ISI increases over 100 ms, so that responses to congruent targets are less accurate than to incongruent targets, which is known as a *negative compatibility effect* (Eimer and Schlaghecken 1998).

Another time-related factor to consider during design is whether responses should be speeded or not. When the research question calls for speeded responses, the experiment is implemented so that if a participant does not respond within a given time frame, the experiment moves on to the next question or the participant receives a message to respond more quickly. The duration of the time window varies depending on the task, and an appropriate duration can be determined using non-speeded pilot data. Requiring immediate responses makes the task more difficult, and so can lead to more variability in responses, but it is generally assumed to capture less conscious processing than non-speeded responses. Speeded responses are also typically used when response time itself is a dependent variable in the study (see Section 20.3).

Researchers must also make a decision about the responses that participants will give to the target (and less commonly, the prime): What task are they doing,

and what behavioural outcome is being analysed? Again, the answer depends on the research question. For researchers interested in lexical access, a common task is the lexical decision task. In a lexical decision task, participants are presented real words and nonsense words (i.e. *blomf*), and asked to decide, as quickly as possible, whether the word is real or fake. In terms of investigating priming using this technique, a researcher might play a word to a participant through headphones (the prime), and then flash a word to them on the screen (the target), asking them to decide about the lexicality of the word on the screen (i.e. Clopper and Walker 2017). In another variant, participants are played the prime in quiet, and played the target mixed with noise, and are asked to identify the target word (Goldinger et al. 1992). Since adding noise makes the target more difficult to hear, it introduces variability, which can help elucidate differences that might otherwise be too subtle to observe. In other studies looking for facilitative or inhibitory effects, participants might be asked to sort the target word into a category. In contrast with a lexical decision task where they categorise tokens as real words versus non-words, participants in these tasks are often asked to indicate whether the word is 'good' or 'bad' (see Section 20.4). Categorisation along other dimensions is also possible ('rich' or 'poor'; 'me' or 'not me'); the appropriate task can be determined by identifying the hypothesised link between the prime and target. In studies looking for effects of associative priming, participants may be asked to do a vowel identification or discrimination task to see whether the incidental prime impacts how they perceive sounds (e.g. Hay and Drager 2010). Alternatively, they could be asked to produce some speech to look for effects of the prime on their pronunciation (e.g. Walker 2019; Hashimoto 2019), or (in unread tasks only) their word or syntax choice (see Pickering and Garrod 2004; Weatherholtz et al. 2014).

When deciding on the number of stimuli, it is important to consider a few key concepts. The first is statistical power. Statistical power is normally achieved through the number of stimuli (i.e. a larger number of stimuli results in more statistical power) and the number of participants (i.e. a larger number of participants results in more statistical power). The two are linked, so that fewer participants are necessary if the number of stimuli is large. It may then seem tempting to include thousands of stimuli. However, long experiments lead to fatigue, which means that participants are more likely to make mistakes or to rely on strategies like answering 'yes' to every question, neither of which produce useful data. Thus, experiments at or under 20 minutes in duration can be ideal, though especially fun experiments can go longer and especially difficult experiments may need to be shorter. If a long, tedious experiment is absolutely necessary, breaks for the participant should be scheduled. Once the duration has been determined, the number of stimuli a participant could respond to during that time can be estimated. If the number is substantially larger than the number of potential stimuli that have been identified, items can be repeated, so that participants respond to a single stimulus more than one time. While item repetition is known to affect behaviour so that, for example, participants are faster at

identifying words to which they have already responded, item repetition can help to increase statistical power and is the only viable option for conducting quantitative work on some rare linguistic phenomena. When item repetition is used, it is important to account for the known effects during analysis. If there are too many items to feasibly play to a single participant, the researcher could make use of experimental lists, where different participants hear different subsets of the stimuli. Different lists are not the same as different conditions; when using different lists, all participants hear the same types of stimuli but not the same exact tokens, or else they hear the same tokens distributed differently across conditions within each list.

Common to all studies that involve priming is the need to exercise care in choosing the experimental stimuli (i.e. the targets and primes), usually making informed choices through norming studies. Norming studies critically confirm that the primes and targets represent what the researcher thinks they represent (e.g. the 'positive' adjectives or images are in fact reliably rated as positive), and/ or that any key associations are strong, since weak associations are often not sufficient to see priming effects (Fazio et al. 1986; Kim and Sumner 2017). Oftentimes, norming information about words or images has already been collected by other researchers, and you can select stimuli based on their reports. For example, for an experiment that used images to prime positive and negative affect (see Section 20.5), Chioti (2019) selected images from the *International Affective Picture System* (Lang et al. 2008), which is a corpus of images that have already been rated by people on scales of valence, arousal, and dominance. However, suitable pre-normed prime-target pairs are not always available. Therefore, some researchers (e.g. Kim and Sumner 2017; see also Section 20.4) conduct norming trials for materials on their own, collecting responses from an independent set of participants prior to finalising their main experiment stimuli about, for example, the perceived emotion of a speaker's voice, and the association strength between different words (*angry–mad*, *angry–upset*, etc.). It is also possible for researchers to norm stimuli for individual participants by collecting responses to stimuli before the main experiment, and then tailoring the stimuli that occur in the main experiment to each individual (e.g. Fazio et al. 1986). Collecting norming stimuli on a large number of potential stimuli makes it possible for the number to be trimmed down to include tokens for which there is a greater chance of observing an effect as well as trimming to achieve the set that is the most balanced across conditions as possible. This is important if items vary across condition as they would in a study that, for example, examines whether positively and negatively valenced images prime pronunciations from marginalised versus standardised language varieties.

When norming stimuli prior to an experiment is not possible, another option is to ask participants to rate the stimuli after they have done the main experiment, both to explore the valence of stimuli for the population and possibly to use in data analysis (e.g. does an individual's rating of a word correlate with their response time to the same word?). This last option is the least ideal way to norm

stimuli, since the appropriateness of the stimuli cannot be determined until data collection has been completed. However, it is better than nothing, and if combined with pre hoc norming, can additionally confirm that there is consistency between the norming and testing populations.

Once the experiment design has been determined, it is time to consider participant sampling and recruitment. While most language-based priming studies assume a random sample in the statistical analysis and design, this is generally not the actual practice. Instead, it is common practice to rely on a participant pool, if available, or to recruit from college and university campuses. Increasingly, online participant recruitment is used. While this is also not a random sample, a more diverse population can be sampled using online tools (Speed et al. 2017). Since some degree of sampling bias is unavoidable, the bias and the way it might shape results should be acknowledged, and claims about the findings should be limited to the sampled population (see also Chapter 10 on sampling).

Whenever conducting research with human participants, it is important to obtain informed consent, or assent in cases when informed consent may not be possible (e.g. minors). Priming experiments are generally not deemed to involve deceit, but if for some reason deceit is necessary in order to test the hypothesis, the researcher must inform the participant of the deceit after completion, re-consent the participant, and be prepared to discard the data should the participant not consent. When using affective primes and targets (see Sections 20.4 and 20.5), it is possible that some of the items are negative mood inductors, effectively macro priming participants to feel sad, angry, or afraid. To avoid causing participants unnecessary stress, researchers may need to consider being explicit about the mood manipulation in recruitment and consent materials, and also consider whether pre-screening or debriefing participants might be wise. For further discussion of participant recruitment and ethics in experimental work, see Drager (2018: 51–55).

20.3   Data Analysis and Interpretation

Priming studies involve a variety of different dependent variable types depending on the research question and experiment design. The dependent variable might be continuous (e.g. reaction time), ordered (e.g. rankings on a scale), or discrete (e.g. the accuracy or identity of a forced-choice response). Some methods allow for multiple dependent variables; for example, in lexical decision tasks it is common to see analyses of both response accuracy and response times for accurate trials.

In all cases, the dependent variable is normally analysed through both data visualisation (e.g. violin plots) and inferential statistics (e.g. a linear regression model with random effects); in both cases, the dependent variable should be compared across conditions (i.e. prime vs. no prime, or prime A vs. prime B).

Mixed-effects models are most commonly used to analyse data from priming experiments over t-tests or ANOVA, for example. This is often because inclusion of random intercepts for participant and item can statistically account for the fact that a single participant responds to multiple items and that items are repeated across participants, and the inclusion of random slopes can capture the fact that any effects of predicting factors may not be distributed equally across participants or items. Thus, many of the guidelines for analysing priming data are the same as those for experiments that do not involve priming.

Interpretation of results from priming experiments involve comparing patterns of behaviour across condition. For example, if in the paradigm shown in Figure 20.1 participants are consistently faster at identifying an apple after being exposed to an orange compared to after being exposed to a hammer, then this is interpreted as evidence that *orange* primes *apple*. It would not be sufficient to claim that priming occurred without such a comparison. For a discussion of how to build and interpret commonly used statistical models in linguistics, see Winter (2019).

20.4   Case Studies Using Priming to Uncover Language Attitudes

Relative to other methods of investigating language attitudes (see e.g. the rest of this volume), there is relatively little language attitudes research that uses priming. This is both a challenge and an opportunity. The challenge is that there is still so much to learn on the topic and few studies to replicate, which means that the chances of making a methodological flaw in design are higher than they would be in a more widely explored area of research. But a major advantage of using priming in language attitudes research is that since there is still so much to learn on the topic, almost any well-executed experiment, including those with null results, can inform the understanding of how attitudinal and linguistic information are stored in the mind and accessed during speech production and perception. This section discusses case studies in which priming is used in language attitudes research as an indirect way to explore the attitudes that participants have towards languages, speakers, and linguistic variants. Such an approach enables the researcher to probe attitudes that the participant may not consciously know that they have, or that, for social face reasons, they may not want the researcher to know they have (Greenwald and Banaji 1995).

These studies assume that attitudes involve a cognitive association between an evaluation (e.g. positive, negative) and some object (Fazio et al. 1982; Powell and Fazio 1984). By analogy with Figure 20.1, Figure 20.2 shows how priming can be used to explore this relationship. If a participant has a positive association with a given linguistic object (e.g. the BATH vowel in Southern British English), then when the representation of that object is activated, the associated evaluation (e.g. *good*) can also be activated through spreading activation. This would then
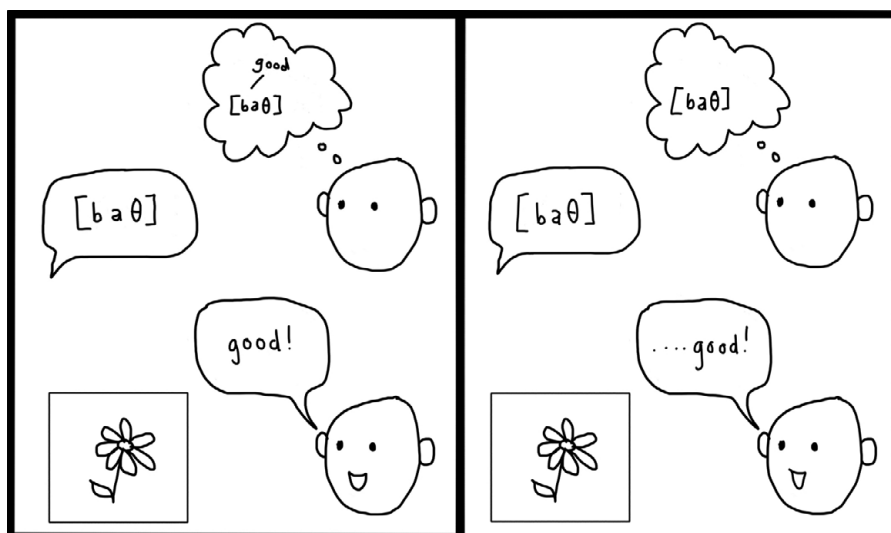
Figure 20.2 *The auditory affective priming paradigm*

result in faster *good* decisions in a following good–bad sorting task, relative to linguistic tokens that have no evaluative association, and/or a negative evaluative association (Figure 20.2, right panel).

This is exactly what the *affective priming* paradigm looks for. For example, in Fazio et al. (1986), participants saw a word (e.g. *bunny*) for 200 ms, then after a 100 ms interstimulus interval (ISI, see above) they were presented with a positively (*delightful*) or negatively (*disgusting*) valenced adjective that they had to categorise as good or bad as quickly as possible. To create a baseline measure of response times (i.e. without priming), participants would sometimes see meaningless letter strings (e.g. *xeh*) before doing the adjective categorisation task. Relative to the baseline, participants were significantly faster in the adjective categorisation task when the prime word and the adjective were congruent (*bunny* paired with *delightful*), and significantly slower when the prime word and the adjective were incongruent (*bunny* followed by *disgusting*). From this, the authors concluded that exposure to *bunny* activated the associated positive evaluation, facilitating a *good* response. Similar effects have been found using masked priming (Perdue et al. 1990). There is also evidence of negative affective priming (Glaser and Banaji 1999; Chan et al. 2006; Klauer et al. 2009).

One feature that makes this paradigm particularly promising for the study of language attitudes is that it also appears to work when the prime is an auditory token (i.e. the *auditory affective priming* task, Figure 20.2), making it possible to manipulate the language variety or linguistic form of interest. In Speelman et al. (2013), participants from two different dialect regions in the Netherlands were

asked to categorise photographs of images (e.g. a strawberry) as either positive or negative. Prior to being shown each image, the participants were exposed to auditory primes made up of neutral (non-valenced) words[3] produced by speakers of different regional varieties of Dutch. Their analysis reveals an interaction between participant region, target valence, and talker region on reaction times. Participants from Antwerp are fastest when responding to positively valenced target image following a prime produced by an Antwerp speaker than when following a token produced by a speaker of either Standard Dutch or West-Flemish. Speakers from West-Flanders respond fastest to positive images following Standard Dutch primes. Speelman et al. (2013) argue that these effects show that hearing words in different accents automatically activate affective connotations of the accent itself (Figure 20.2): When participants have positive attitudes to a variety, they are faster at classifying unrelated, positive images that follow auditory tokens from that variety.

Another notable use of the auditory affective priming paradigm is in Kim and Sumner (2017), where they presented participants with non-emotional words (i.e. *pineapple*), spoken by a single speaker in either a neutral, angry, or happy voice. 100 ms after hearing the primes, participants saw a word on the screen that was either angry-related (*upset, mad*), happy-related (*smile*, *joy*), or a real or nonsense word filler. Participants had to decide as quickly as possible whether the word on the screen was a real or nonsense word (i.e. a lexical decision task). An analysis of response times showed that hearing a word said in an angry prosody facilitated recognition of more angry words, and hearing a word said in a happy prosody facilitated recognition of more happy words. However, while the angry prosody was significantly more facilitative than the neutral prosody for more angry-related words, the happy and neutral voice both facilitated activation of happier words. This could be methodological – the speaker's neutral voice may have just been happy enough to prime happiness – or it may reflect that happier words are just processed more quickly in general, independent of voice prosody (see Algom et al. 2004; Estes and Adelman 2008). This study not only provides further evidence that the auditory affective paradigm can be used to explore phonetic realisations of words (be it emotional or dialectal), but also that the affective priming paradigm does not necessarily require participants to sort targets into good/bad categories: it is also possible to observe the effects of priming using an emotionally more neutral lexical decision task. This could thus present opportunities for exploring more nuanced attitudes associated with languages or dialects, moving beyond 'good' and 'bad'.

There are other tasks that stem from conditioning and association rather than priming, but that can similarly investigate participants' evaluative associations of

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3 They used both nonsense words and real words as the prime, but found no difference between them in terms of affective priming. In selecting real words, they chose words with high frequency in the Corpus *Gesproken Nederlands* (Schuurman et al. 2003), and pre-tested the familiarity and valence of the words with a different set of participants in a pilot questionnaire.

language, and may be of interest to researchers interested in using priming in language attitudes studies. One is the Implicit Association/Attitudes Task, which is the focus of Chapter 16. Another method is *higher-order conditioning* (Staats and Staats 1957, 1958), which Perdue et al. (1990) use to explore ingroup bias. In this task, participants are presented with positively or negatively valenced real words, and a nonsense word (e.g. *xeh*), and are asked to indicate which word is the real word. The same nonsense words appear frequently throughout the experiment, always paired with the same type of word (i.e. positive words). At the end of the task, participants are asked to rate how positive or negative the nonsense word is, and nonsense words consistently paired with positively valenced words are rated as more pleasant than other nonsense words. That is, the co-presentation of a positive evaluation and a nonsense word creates an association between the two. Perdue et al. use this paradigm to test the valence of ingroup pronouns (*we, us, ours*) compared to outgroup pronouns (*they, them, theirs*), and show that participants rate nonsense words consistently paired with ingroup pronouns as more pleasant than those paired with outgroup pronouns (though the outgroup pronouns were not significantly less pleasant than the control pronouns like *he, she*). The authors argue that the fact that the first-person pronouns can imbue nonsense syllables with positive connotations shows that the pronouns themselves must have positive connotations.

20.5   Case Studies Using Priming to Impact Language Attitudes Ratings

The language attitudes that researchers are primarily interested in are shaped by long-term and relatively entrenched ideologies about speakers and language (e.g. Lippi-Green 1997) that are unlikely to be easily affected by priming. However, the small body of literature looking at how priming can influence how listeners respond in language attitudes tasks is promising on a few fronts: first, by highlighting methodological concerns in collecting language attitudes, and second, in refining the understanding of how attitudes develop and are maintained.

In previous sections, priming is discussed as spreading activation: Activating one thing activates another thing, which then influences future behaviour. In the case of priming attitudes, the lingering activation of something (un)pleasant impacts the (positive/negative) evaluation of an unrelated stimulus (see Figure 20.3) in what is referred to here as a *reverse affective priming* paradigm. For example, Murphy and Zajonc (1993) showed English-speaking participants a smiling or angry face for 4 ms (i.e. subliminally) followed by an unfamiliar Chinese ideograph that participants had to rate on a five-point scale indicating whether they did or did not like the characters. Even though participants did not report seeing the faces, or show recognition of the faces in a later task, they appear to have been influenced by the effect of the preceding face; relative to the
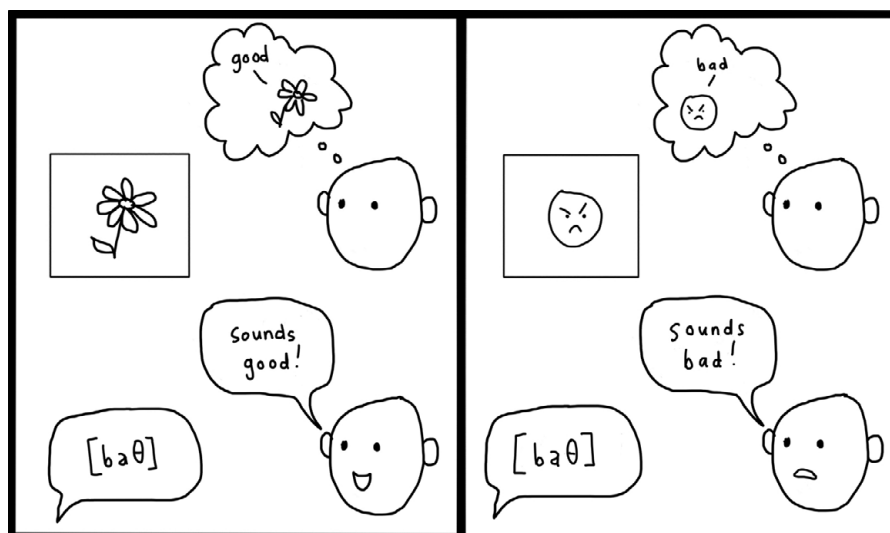
Figure 20.3 *The reverse affective priming paradigm*

baseline trials (no priming, or priming with simple shapes), they reported liking the ideographs less following an angry face, and liking them more following a positive face.[4]

Critically for this volume, there is some evidence that reported language attitudes elicited using rating tasks can be affected by these sorts of affective primes. In a pilot study, Chioti (2019) exposed participants to positively valenced priming images (e.g. a beach), negatively valenced priming images (e.g. someone vomiting), and neutrally valenced images (e.g. a rolling pin), and asked participants to rate following auditory tokens according to how pleasant they sounded. The auditory tokens consisted of three recorded speech samples of the same phonetician reading a short weather report in a performed Birmingham, Received Pronunciation (RP), and standard Edinburgh accent (i.e. a matched-guise technique, see Chapter 12). After seeing a priming image, participants were asked to rate the target speaker or images on a few affective scales; for the speakers, this included questions relating to status (e.g. *extremely refined* to *extremely unrefined*), and to solidarity (e.g. *extremely friendly* to *extremely unfriendly*). Solidarity but not status ratings of the Birmingham-accented guise (the most non-standard variety tested) were significantly different depending on

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4 Interestingly, this effect was not observed when the faces were presented supraliminally, though the supraliminal primes approached having a significant effect when the task was changed from rating likability to goodness.

whether the priming picture was positively or negatively valenced, with lower scores being assigned to recordings following a negative prime. For the RP and Edinburgh accents, only some of the status traits (and none of the solidarity traits) were rated significantly higher when they followed positive images compared to when they followed negative images. There are three key findings from this work. First, priming can be used to impact language attitudes ratings. Second, affective primes have a different impact across different types of accents. Third, affective primes have a different impact on status versus solidarity ratings.

One implication of results like these is that, unless explicitly investigating such effects, it is important to be careful in controlling for extra- and intra-experimental factors that may influence how participants respond in an evaluative rating task; the ratings collected are directly impacted by what participants have seen/heard/done prior to making the ratings. While Chioti (2019) is careful to distinguish between affect, cognition, behaviour, and mood, the work appears to complement existing work that shows that participant mood affects their evaluation of people (Forgas and Bower 1987; Forgas and Moylan 1989), including their evaluation of speech samples (e.g. Campbell-Kibler 2011; Cargile and Giles 1997). Of special concern is the fact that the affective primes (Chioti 2019) and self-reported moods of participants (Campbell-Kibler 2011) did not impact different varieties equally; generally, the more standard varieties/variants were more immune to affective primes and moods. Therefore, one runs the risk of overstating differences between varieties if they are not careful in the experimental design.

In particular, researchers collecting ratings (e.g. using the matched-guise technique; including ratings at the end of another task) should pay attention to the tone of any speech samples (see the discussion of Kim and Sumner 2017 in Section 20.4) and the nature of other tasks that participants may have completed prior to the rating task. For example, prior to doing an evaluation task, did participants do a lengthy and/or difficult – that is, an unpleasant – task, or, worse yet, did the task – and perhaps the pleasantness of the task – differ across participants? To the extent possible, it may also be wise for researchers to control for the impact of the participants' moods by collecting self-reported mood as part of the standard background information questionnaire.

From a theoretical perspective, work in this area has the potential to help us understand how attitude creation and maintenance interact with emotional responses and situational stances and frames. The fact that different dialects and types of evaluations are impacted differently by the same affective primes suggests that dialect-evaluation pairings could result from a number of different underlying mechanisms. For example, Chioti (2019) hypothesises that evaluations of status may be based more on cognitive attitudes, and evaluations of solidarity may be based more on affective attitudes, since affectual primes more clearly impacted solidarity ratings (see Edwards 1990). This could potentially offer a cognitive basis for the oft-noted separation of status and solidarity ratings in language attitudes research.

Pairing affective primes with linguistic targets may also offer insights into how attitudes can be formed and changed. Section 20.4 discusses a study by Perdue et al. (1990) showing that positive valence could transfer from one item to a frequently co-occurring item, raising the possibility that long-term associations between linguistic forms and affect can be created in a similar manner. Relatedly, work by Fazio and colleagues (Fazio et al. 1982; Powell and Fazio 1984) suggests that the associative strength between objects and existing evaluations can be increased if participants are repeatedly asked to make affective judgements about the objects. Potentially then, the more frequently people are asked to evaluate a linguistic form, the more entrenched their opinions about the form could become.

20.6   New or Emerging Trends

In terms of using priming to explore a participants' held beliefs (Section 20.4), there are a number of ways to extend on the affective priming procedure, where participants are exposed to linguistic primes and categorise images as good or bad (Speelman et al. 2013) or complete a lexical decision task with real words that are differently valenced (Kim and Sumner 2017). First, while work using affective priming paradigm in language attitudes has so far used the auditory affective priming paradigm, it would also be possible for researchers to use the standard, visual affective priming paradigm (Fazio et al. 1986). For example, researchers could use visual word primes to test evaluations of regionally marked lexical items (*y'all*, *lassies*, etc.) but possibly also language variety names (*Scots*, *RP, Spanish*, etc.). The affective priming paradigm could also potentially be used to explore more than simply affectual (positive, negative) associations (i.e. auditory *association* priming). For example, perhaps the linguistic prime is speech from an RP English speaker, and the research question focuses on the facilitation of words or images associated with wealth, such as *money, rich, mansion*, etcetera (see Murphy and Zajonc 1993). It would also be possible to use the paradigm to explore the evaluations associated with more fine-grained phonetic detail. For example, instead of varying language variety or tone of voice across condition, spoken primes could contain sociolinguistic variables, such as released or unreleased phrase-final /t/, or fronted/backed TRAP vowels.

In terms of what is called the reverse affective priming paradigm (i.e. Chioti 2019) where exposure to affective images affects subsequent ratings of linguistic stimuli, one extension of this work could be to see whether affective priming can prime a language variety in itself (i.e. can *good* prime [baθ]). For example, a picture of a beach (a positively valenced prime) could be shown to participants in order to see whether this results in faster responses to a particular dialect in a lexical decision task, or causes them to shift their speech production towards a particular dialect (e.g. a marginalised vs. standardised dialect). In both cases, it

would suggest participants had an ideological link between the affect and a dialect.

A large question in attitudes research across fields is whether attitudes are primed automatically or strategically (e.g. McNamara 2005: 55; Bargh 2006) and an important avenue of future research could be to explore how much *language* attitudes are primed automatically or strategically. One way to tease apart the two priming processes could be to introduce a distractor task or stressors (e.g. fatigue, alcohol) into an affective priming study. Because automatic processes require little effort, they are little affected by workload or the presence of stressors, and so being tired or drunk should not impact results. In contrast, controlled processes slow down when the individual is involved in other controlled processes or when stressors are present (Schneider and Chein 2003: 529), in which case it would be expected to see an interaction between priming and the presence/absence of stressors.

Apart from the authors' own work focused on investigating language attitudes (i.e. Nielsen and Hay 2005; Walker et al. 2014; Drager et al. 2021), a primary reason that the authors are interested in priming in language attitudes research is because of the way that these attitudes may interact with other basic linguistic processes. In terms of speech production, do attitudes towards a second language affect pronunciation of words borrowed from that language (see Hashimoto 2019), or do attitudes towards a second dialect or speaker influence whether a speaker shifts their speech towards that dialect or speaker in instances of short-term (see Babel 2010, 2012; Drager et al. 2010; Weatherholtz et al. 2014) and long-term exposure (e.g. Lin 2018)? In terms of speech perception, do attitudes mediate what listeners hear, or how easily they hear it (e.g. Walker et al. 2018; Babel et al. 2019)? As researchers refine the ability to use priming in language attitudes research, it also refines the ability to explore the fundamental relationship between attitudes and linguistic varieties, and how people talk and listen.

Suggested further readings

Bermeitinger (2015); Kim and Sumner (2017); McNamara (2005); Molden (2014); Speelman et al. (2013)

21 Mixed-Methods Approaches to the Study of Language Attitudes

Ruth Kircher and James Hawkey

21.1 Introduction

Scholars in the social and behavioural sciences have long appreciated the advantages of combining multiple research paradigms and analytical approaches. Mixed-methods studies '[recognise] the importance of traditional quantitative and qualitative research but also [offer] a powerful third paradigm choice that often will provide the most informative, complete, balanced and useful research results' (Johnson et al. 2007: 129). This final chapter advocates for the treatment and integration of several methods as '[t]o use only one method, and particularly so in pursuit of socio-political ideals [. . .], is to be guilty of misunderstanding the nature of language attitudes' (Ryan et al. 1988: 1076). Before focusing on specific implications for research design and data treatment, this introduction to the chapter presents some of the key background issues. It is first necessary to ascertain what is meant by 'mixed methods' – is it always the case that different methodological frameworks are employed, or might the term simply refer to the combination of multiple approaches to data analysis? Then, the focus turns to how, in social science studies, multiple approaches are integrated into one protocol in terms of their relative importance or sequentiality, as well as how several types of data and multiple methods can be effectively triangulated within one study. Having examined these fundamental issues, this section briefly looks at the role played by mixed-methods work in the development of research design in language attitudes scholarship.

21.1.1 Mixed-Methods Approaches in the Social and Behavioural Sciences

The term *mixed methods* has been used to describe a range of methodological and data analytical approaches. Broadly speaking, these are traditionally taken to include quantitative and qualitative components:

> Mixed-methods research is a type of research design in which qualitative and quantitative approaches are used in types of questions, research methods, data collection and analysis procedures, and/or inferences. (Tashakkori and Teddlie 2003: 711)

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Often, one approach is given precedence over the other within the same over-arching research protocol, with many mixed-methods studies being primarily quantitative or qualitative in nature:

> A mixed-method design is a plan for a scientifically rigorous research process comprised of a qualitative or quantitative core component that directs the theoretical drive, with qualitative or quantitative supplementary component(s). These components of the research fit together to enhance description [and] understanding and can be conducted simultaneously or sequentially. (personal correspondence with Janice Morse, cited in Johnson et al. 2007: 119)

While Morse's definition places (perhaps limitingly) *either* quantitative *or* qualitative approaches at the centre of any given research protocol, it highlights several key facets of mixed-methods research that will prove important to the present discussion. Firstly, as in Tashakkori and Teddlie (2003: 711), the sole focus is not placed on methodological design, but also potentially on data analysis ('to enhance description and understanding'). Secondly, different components of the research can be more or less central to the overall protocol. Thirdly, these components can be conducted sequentially or not. Finally, while Morse specifies that there is one (quantitative or qualitative) core component, there can be multiple supplementary components. This allows not only for the traditional quantitative/qualitative combination, but others such as quantitative/qualitative/quantitative or quantitative/qualitative/qualitative. It should be noted that most definitions of mixed-methods research advanced by social and behavioural researchers (see e.g. all definitions given in Johnson et al. 2007) include at least one quantitative and one qualitative component. As such, combinations such as quantitative/quantitative and qualitative/qualitative are not typically included under the epithet of mixed-methods studies. However, when the focus is turned specifically to language attitudes, it will be clear that this conceptualisation needs to be nuanced somewhat.

The issues of importance and sequentiality result in multiple potential research designs. Johnson and Onwuegbuzie (2004), limiting themselves to two components, combine these in different ways to give the configurations in Figure 21.1 (where upper case refers to greater importance and lower case to lesser importance; + refers to simultaneity and → to sequentiality).

Note that, unlike Morse (2003), Johnson and Onwuegbuzie (2004) allow for multiple 'core' components (to use Morse's term). Figure 21.1 shows that it is not enough to simply state that a research protocol contains both quantitative and qualitative components – it must be clear exactly how these are combined, in terms of their relative importance and the order in which they appear.

Another concern is how best to triangulate all of these different components within one research protocol. Triangulation refers to 'the use of more than one approach to the investigation of a research question in order to enhance confidence in the ensuing findings' (Bryman 2004: 1142). The convergence of findings from different methods within the same protocol is interpreted as mutually corroborating, thus increasing researchers' confidence in their overall findings. While the

Time Order Decision

		Concurrent	Sequential
Paradigm Emphasis Decision	Equal Status	QUAL + QUANT	QUAL → QUANT QUANT → QUAL
	Dominant Status	QUAL + quant	QUAL → quant qual → QUANT
		QUANT + qual	QUANT → qual quant → QUAL

Figure 21.1 *Research design configurations (Johnson and Onwuegbuzie 2004: 22)*

ability to triangulate components is often prized as a feature of good research design (e.g. Cohen and Manion 1994), exploration of the concept reveals serious underlying issues. Firstly, triangulation promotes the positivist view that there is a single objective 'truth' to be obtained from social science study (Angouri 2018: 42), rather than taking into account the multiple complex narratives that qualitative data are designed to elicit. Secondly, and relatedly, qualitative methods are often employed as a supplementary afterthought, simply to corroborate quantitative findings. When used in this way, mixed-methods research arguably perpetuates the dominance of positivist, quantitative traditions, rather than questioning this stance (Giddings 2006; Angouri 2018).

21.1.2   Mixed-Methods Approaches to Language Attitudes Research ▪

As seen throughout this volume, there are numerous methodological approaches to the study of language attitudes, including the societal treatment of language as well as different direct and indirect elicitation methods. These methods yield different types of data, amenable to different analytical treatments. In light of such methodological richness (and after Ryan et al. 1988), a holistic approach to the study of language attitudes is advocated, drawing on multiple methods as appropriate. Moreover, the use of mixed methods in language attitudes research will allow for a reconsideration of some of the limitations in extant mixed-methods studies highlighted in this chapter thus far. Firstly, returning to the question of what exactly constitutes mixed methods, language attitudes scholarship offers one challenge to the existing qualitative/quantitative binary. A brief examination of the different approaches to language attitudes covered in this volume reveals that it is not the *methods* that fall into the categories of quantitative and qualitative, but rather the *data* elicited. Indeed, one specific method (e.g. the attitudes questionnaire) has the capacity to elicit both quantitative and qualitative data (see Chapter 9 and Chapter 10,

respectively). Rather than being classified as quantitative or qualitative, language attitudes methods are more accurately subdivided into three groups, as seen in this volume: namely societal treatment methods, direct elicitation methods, and indirect elicitation methods. As mentioned above, Ryan et al. (1988) talk of the need to combine different methods in order to gain the most complete understanding of language attitudes – if not methods of all three types given here, then at least a combination of two types of methods is advised. Given the ability of one method alone to yield both quantitative and qualitative data, it is to be expected that protocols which bring together societal treatment, direct, and indirect methods might at least provide the researcher with a range of configurations of data types. Combining different methods from the types discussed in the book so far may well yield pairings such as quantitative/quantitative (if, say, one were to combine a questionnaire with a variationist analysis) or qualitative/qualitative (e.g. if combining focus groups with perceptual dialectology map tasks). While such combinations would not normally be included under the epithet of mixed-methods protocols, it is done so here as each individual method serves to 'enhance description and understanding' (personal correspondence with Janice Morse, cited in Johnson et al. 2007: 119) of the overall research question.[1] This leads on to the triangulation issue: Mixed-methods research in social science has been critiqued for arguably placing too much emphasis on the corroborating nature of converging findings. However, in language attitudes research, one would *expect* for different methods to yield different (and even contradictory) data, since these methods operate at different levels of analysis. Rather than necessarily seeking convergence in results as evidence of corroboration (as in other social sciences), divergence of results obtained by multiple methods is precisely how researchers can witness the complexities within language attitudes.

21.2   Research Planning and Design

It is generally agreed that the use of mixed methods brings many advantages to the study of language attitudes. Most importantly, combining methods may indeed enhance understanding by shedding light on different 'layers of meaning' (Holmes 2007: 5) or aspects of 'reality' (Lazaraton 2005: 219). Yet, crucially, there is no 'one size fits all' approach to employing mixed methods. The research context, the research question(s), and the aim(s) and focus of the researcher are decisive factors in determining the appropriate choice of methods and the manner in which these are integrated (Angouri 2018). As

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1 The term *multimethod research* can be employed to highlight instances where multiple operationalism (i.e. the use of multiple methods as part of a result validation process) is of particular importance (e.g. Johnson et al. 2007: 113–114), but has been avoided here in the interests of clarity.

Bryman (2007: 8) notes, methods can only be said to be genuinely integrated if they are 'mutually illuminating' and 'the end product is more than the sum of the individual [. . .] parts'. Careful planning at the research design stage is crucial to achieve this.

21.2.1   Addressing Ontological and Epistemological Challenges

One way of promoting the genuine integration of methods is to engage with any ontological and epistemological challenges (in cases where these arise). Researchers from different disciplines and backgrounds in the social and behavioural sciences hold different assumptions about the nature of the social world as well as the nature of social knowledge. Consequently, different approaches – to the study of language attitudes but also to other aspects of inter-personal and intergroup issues – do not necessarily 'comfortably sit under one design' (Angouri 2018: 39). For instance, researchers who favour an etic per-spective typically require relatively large participant samples while those who take an emic perspective tend to work with much smaller samples, and such differences can entail divergent positions regarding the validity and interpretation of research findings (Dewaele 2009). Some researchers thus consider etic and emic approaches to be mutually exclusive, commenting on the 'incommensur-ability of findings generated by standardized and essentially quantitative methods, on the one hand, and idiosyncratic and essentially qualitative research methods, on the other' (Manstead and Fisher 2002: 3). By contrast, other researchers tend to give very little thought to ontological and epistemological issues at all (Bryman 2007). How to handle the mixing of different frameworks when combining methods has thus long constituted one of the most contested aspects of the debates surrounding mixed-methods research (Greene 2008). It goes beyond the scope of this chapter to provide solutions for reconciling contrasting, and in some cases even competing, frameworks and assumptions (but see e.g. Bryman 2007; Greene 2008; Tashakkori and Creswell 2007 for discussions of this). The main point to be made here is that, in order to achieve a genuine integration of methods in language attitudes research, ontological and epistemological challenges should neither be aggrandised nor ignored. Instead, a sensible and meaningful way of combining methods needs to be developed.

21.2.2   Giving Equal Weighting to Methods

Another way of promoting the genuine integration of methods is to ensure their – at least relatively – equal weighting. As noted in the introduction to this chapter, often, one approach is given precedence over the other within the same overarching research protocol. Yet ideally, no method should be given 'the role of the hand maiden' in relation to another (Bryman 2007: 13) just like no method should be considered merely 'a supplement to be tacked on' at the end of another (Liebscher and Dailey-O'Cain 2009: 196; see also Chapter 2). When

combining two or more methods, all should be carefully chosen and their implementation diligently planned, with an awareness of the potential contribution that each of them can make to the research findings.

21.2.3   Considering the Sequencing of Methods

A further way of promoting the genuine integration of methods is to carefully consider their sequencing: As Figure 21.1 shows, it is not sufficient to simply state which methodological components a research protocol contains but it must also be clear in which order they appear. This order depends on the kinds of methods that are combined.

It has long been recognised that ideally, any study of language attitudes would make use of a combination of methods pertaining to all three types – that is, analyses of the societal treatment of language, direct methods, and indirect methods of attitude elicitation (Ryan et al. 1988; see also Chapter 1). Studies such as Ladegaard (2000) and Kristiansen (2003) show that this combination provides highly comprehensive insights into the nature of language attitudes. In cases where it is not possible to combine methods from all three types, it is strongly recommended to use at least two different types – for as noted above, different types of methods produce results at different levels of analysis. For instance, direct methods usually yield results that reveal – or are affected by – what respondents consider to be socially acceptable and/or desirable (e.g. Baker 1992) while indirect methods elicit more private and spontaneous reactions (e.g. Lambert et al. 1960). A mixed-methods study that employs both types of methods will thus most likely produce divergent and even seemingly contradictory findings. However, this is by no means an issue of relative methodological merit: It is simply due to the fact that the different types of methods shed light on different layers of meaning and experience.

> This is so because of the often-forgotten fact that language attitudes are not like minerals there to be mined and unearthed, they are *social constructions* constantly changing to meet the demand of the situation in which they are *expressed* [. . .]. The direct and indirect methods lay claim to quite different layers of experience and as such manifest sometimes quite contradictory, yet highly rational, attitude constellations. (Ryan et al. 1988: 1076)

The researcher's challenge, then, consists of finding out the reasons behind such attitude constellations – and when this is done successfully, deeper and more nuanced insights can be obtained than by any one method alone (e.g. Hoare 2001; Kircher 2014a).

Since it lies in the nature of direct methods that participants are aware of the research purpose, whereas their unawareness of it tends to be a prerequisite for indirect methods, it is crucial that the indirect method(s) be employed before the direct one(s) – at least if the researcher wishes to use the same participant sample for both.

The use of the same, or at least an overlapping, participant sample is generally recommended in mixed-methods research as it allows for better comparisons to be drawn between the findings obtained by means of the different methods. In cases where it is not possible to use the same or an overlapping participant sample, simultaneous rather than sequential data collection by means of the different methods may be appropriate – unless the development of the research instrument for one method depends on the results of the other (see below). However, if entirely different participant samples are used, the researcher should ensure that they are at least as similar as possible.

While it is traditionally considered ideal to combine different types of methods for the investigation of language attitudes, there is also much to be gained from mixing methods of the same type. For instance, combining methods that yield qualitative data with those that yield quantitative data, no matter what method type, can certainly also contribute to a more comprehensive understanding of language attitudes. The quantitative component provides data that can be ana-lysed statistically and thus allow for the generalisation of the findings, while the qualitative component yields data that enable in-depth analyses with great attention to detail. If they are integrated properly, mixing such methods can thus mean combining their strengths (Teddlie and Tashakkori 2009; Creswell and Plano Clark 2010; see also Chapter 4). Moreover, mixing methods – even of the same type – can at least partly eliminate the drawbacks and difficulties associated with individual research methods (Krug and Sell 2013).

When combining methods that yield qualitative data with those that yield quantitative data, there are several sequencing options, the choice of which depends on the research context, aims, and questions. Employing a method to collect qualitative data first is particularly useful in exploratory studies since it can help with conceptual and instrument development when researchers 'are not [yet] entirely sure what categories, links and perspectives are relevant' (Macnaghten and Myers 2004: 65; see also Chapter 8). Collecting qualitative data in the early stages of a project can allow the researcher to identify noteworthy aspects of the issue they are investigating, and it can enable them to refine their research questions (Chapter 7). Moreover, it can support the development of the research instrument by means of which they subsequently plan to collect quantitative data – for example by informing the content, wording, and answer options that will be provided (Chapters 9 and 10). Ballinger et al. (2020) and the follow-up studies of this project (e.g. Kircher et al. 2022) illustrate how qualitative data, when collected first, can then be gainfully employed for the development of a research instrument to collect quantitative language attitudes data.

Beginning with the collection of quantitative data, on the other hand, has the advantage of allowing the researcher to identify significant attitudinal trends – and it can be useful when the researcher wishes to recognise representative sample members as compared to outliers (Johnson et al. 2007). The subsequent elicitation of qualitative data also allows the researcher to pursue the causes of

the trends that have emerged as well as following up on interesting points (Creswell and Plano Clark 2010). Dewaele (2018: 282) exemplifies the benefits of this in the following account:

> Benedetta Bassetti helped me in interviewing 20 multilinguals after they had filled out the BEQ [Bilingualism and Emotion Questionnaire] (Dewaele 2013). Noticing that a participant had indicated that she had never used swearwords in her English L2, Benedetta challenged her in the interview. The participant admitted that she had indeed started using mild English swearwords, but only when having tea with her Chinese friends in London.

Employing a method to collect qualitative data to follow up on quantitative findings can thus bring to the fore unexpected points and allow for a more differentiated and in-depth analysis.

While much of the literature on mixed-methods research focuses on the combination of methods that elicit qualitative as well as quantitative data, it is important to note that mixing different methods which all yield qualitative data – or different methods which all yield quantitative data – also allows for deeper and more nuanced insights than can be obtained than by any one method alone. This is demonstrated, for instance, by De Meulder and Birnie (2020), whose combination of three different methods that all elicited qualitative data led to a much more comprehensive and contextualised picture to emerge of affect, cognition, and conation as constitutive components of language attitudes (see also Chapters 1 and 18).

21.3   Data Analysis and Interpretation

Integrating multiple methods into one protocol requires the researcher to consider a host of implications for the analysis and interpretation of their findings. The nature of these implications entirely depends on the specific individual methods and the ways in which they are to be combined. The present section briefly addresses issues of analysis and interpretation that arise from the mere fact of combining different approaches into one complex protocol. For issues concerning the analysis and interpretation of findings from individual component methods (e.g. questionnaires, matched-guise tests, focus groups, etc.), please refer to the relevant sections in the respective chapters of this volume.

Bryman (2007: 9) highlights that, in order to make the most of the data obtained within a mixed-methods protocol, successful analytical integration of findings from the different components is fundamental. Integration, in this context, refers to the extent to which 'researchers analyse, interpret, and write up their research in such a way that the [. . .] components are mutually illuminating' (Bryman 2007: 8). In many cases, a clear fusion of multiple analytical components is not necessarily intended from the outset of the project, with qualitative and quantitative data answering different research questions. This could be for any number of epistemological or (frequently) practical reasons. For example, the timeframes of different

research components may be misaligned, so as to make easy and successful analytical integration of multiple elements difficult (Bryman 2007). Often, qualitative fieldwork comprises an emic means of understanding the nature of the main attitudinal issues within the community of study. As such, it would precede any subsequent quantitative data gathering, and is therefore potentially published separately, inhibiting successful analytical integration between the components. Relatedly, some quantitative data require lengthy coding and analysis (e.g. extraction, segmentation, and normalisation of phonetic data from multiple participants; coding of hundreds of attitudes questionnaires; etc.), thus delaying the writing and publication time of this component of the research, and further encouraging the de facto separation of the results of the different components of the mixed-methods protocol. Similarly, Bryman (2007: 12) stresses that 'mixed-methods researchers sometimes find that they end up writing their quantitative and qualitative findings for different audiences', which also inhibits successful analytical integration of findings from multiple components.

Moreover, successful integration of qualitative and quantitative components causes a number of issues to emerge, with impacts for all types of data elicitation methods. Starting with quantitative data, Kircher (Chapter 9) highlights the issues of cleaning and coding. Qualitative insights may inform researcher views on who exactly forms part of the speech community under investigation, particularly in cases where boundaries of ingroup membership may be unclear. This therefore influences processes of quantitative data cleaning, as qualitative findings could be used as a justification for the inclusion or exclusion of participants in quantitative components. As regards data coding, in a protocol with multiple quantitative elements, it may be preferable or necessary to use the same software (e.g. Microsoft Excel) and/or formats (e.g. .csv files) for multiple components, in order to integrate different experiments into one model (see e.g. Chapter 6).

Turning to impacts on qualitative data collection, the successful integration of multiple methodological components may influence the nature of inductive or deductive approaches (see e.g. Chapter 10) adopted by the researcher. An inductive approach to quantitative findings may bring certain elements to the foreground that reveal important information about the community. This information could then be developed by extensive analysis of subsequently collected qualitative data. Similarly, pre-existing quantitative findings may lead a researcher to adopt a deductive approach, if these quantitative results necessitate the adoption of certain research questions, which are then brought to the analysis of any qualitative data.

21.4   Case Study: Language Attitudes in Montreal

Several key points discussed in this chapter can be illustrated by a mixed-methods investigation of language attitudes that I (Author 1) conducted in Montreal, the urban centre of Quebec (see Kircher 2014a for a full discussion of

this study). While it is Canada's only province with an L1 French majority, Quebec is nevertheless home to a sizeable L1 English minority – as well as Indigenous peoples and a growing number of immigrants and their descendants who are L1 users of languages other than French or English (L1 Other).[2] Historically, the L1 English minority constituted the province's economic elite – and consequently, they could live and work exclusively in English without ever needing to learn French, while L1 French users were obliged to learn and use English in order to achieve socio-economic advancement (Bernard 2008). This led to high rates of language shift among L1 French users, and L1 Other users also long tended to integrate into the province's L1 English-speaking communities (Levine 1990; Dickinson and Young 2003). Since the 1970s, concerted language planning efforts have strengthened the position of French in Quebec society as well as promoting an affective attachment to the language among all L1 groups (Oakes and Warren 2007). Nevertheless, French continues to face the challenge of English since the latter not only remains the language of upward mobility in the rest of Canada and North America at large, but it also holds a strong power of attraction due to its status as the global lingua franca (Stefanescu and Georgeault 2005; Kircher 2016a). Since the majority of Quebec's L1 English and L1 Other users concentrate in Montreal, and this is where French therefore faces the greatest challenges, it is generally assumed that it is in this city that the future of the French language in the province will be determined (e.g. Levine 1990; Bourhis 2001).

In this context, I set out to investigate attitudes towards French compared to English among L1 French, L1 English, and L1 Other users in Montreal. The methods chosen for this study were a questionnaire and a matched-guise experiment. This choice was motivated by the aforementioned fact that direct and indirect methods of attitude elicitation frequently yield results that pertain to different levels of analysis: Direct methods, like questionnaires, usually reveal what people deem to be socially acceptable and/or desirable (Chapter 9) – while indirect methods, like the matched-guise technique, provide insights into people's more privately held attitudes without the influence of social desirability biases (Chapter 12). From the outset, the methods employed in this study were thus integrated: They were deliberately chosen because it could be expected that their results would differ from each other, and that 'the end product [would be] more than the sum of the individual parts' (Bryman 2007: 8). Since the landmark study by Lambert et al. (1960), this was the first study to combine a direct with an indirect method of attitude elicitation for research among L1 French and L1 English Montrealers, and it was the first study ever to do so among L1 Other Montrealers. The specific aims of this study were, firstly, to find out whether there were attitudinal differences between the different L1 groups; and secondly, to find out to what extent provincial language planning in Quebec had been

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2 L1 Other speakers are far from being a homogeneous group, and the term *L1 Other* is only used for brevity's sake.

successful with regard to raising the status of French (as reflected in attitudes on the status dimension) as well as the promotion of an affective attachment to the language (as reflected in attitudes on the solidarity dimension).

The questionnaire was developed in keeping with the directions detailed in Chapters 9 and 10; the matched-guise experiment was designed in accordance with the guidelines given in Chapter 12 (see also Kircher 2016c). Both research instruments included items pertaining to the two main dimensions of language attitudes – that is, status and solidarity (Chapter 1). The participant sample consisted of 147 adolescents of different L1s. For all of them, the matched-guise experiment was conducted first. At this stage, the participants were unaware of the real research purpose. Instead, as is customary, I told them that it was 'an experimental investigation of the extent to which people's judgements about a speaker are determined by [their] voice' (Lambert et al. 1960: 44), such as when trying to estimate the personality of an unfamiliar speaker on the radio or at the other end of a telephone. Moreover, the participants remained unaware that they heard each speaker more than once. Following the matched-guise experiment, the participants were debriefed, and finally, the questionnaire was administered.

ANOVAs (and subsequent t-tests) performed on the data from both methods revealed that L1 French users, L1 English users, and L1 Other users alike held positive attitudes towards both English and French on the status dimension – but their attitudes towards English were significantly *more* positive. The fact that French was evaluated positively on the status dimension at all can be interpreted as a consequence of the aforementioned language planning measures. The comparatively more favourable evaluations of English, on the other hand, are likely a reflection of the status that English continues to hold as the language of upward mobility in Canada and North America at large, as well as its role as the global lingua franca. Notably, the participants not only held these more positive attitudes towards English privately, as evidenced by the findings from the matched-guise experiment, but they also considered these attitudes to be socially acceptable, as attested by the questionnaire results.

With regard to the solidarity dimension, the findings from both methods again revealed positive attitudes towards French as well as English. However, the outcome of the questionnaire indicated more positive attitudes towards French among the L1 French users, more positive attitudes towards English among the L1 English users, and equally positive attitudes towards both languages among the L1 Other users. By contrast, the results of the matched-guise experiment revealed more positive attitudes towards English among *all* L1 groups. It is likely that, on the one hand, the outcome of the questionnaire shows what the participants deemed socially acceptable and/or desirable – probably as a consequence of the aforementioned language planning measures – while the results of the matched-guise experiment, on the other hand, shed light on the participants' more privately held attitudes (which, in the case of the L1 French and L1 Other users, appear not to have been deemed socially acceptable).

As explained in this chapter, in mixed-methods research protocols, the integration of methods is key not only at the research planning and design stage, but also when it comes to the analysis and interpretation of the data. Even this brief summary of the findings from my study of language attitudes in Montreal shows that when the interpretation of the findings from the different methods is genuinely integrated, these are indeed 'mutually illuminating' (Bryman 2007: 8): It is only when the findings of the questionnaire and the matched-guise experiment are considered in conjunction that a comprehensive insight into attitudes towards French and English on the status and the solidarity dimensions can be obtained.

It remains to be investigated what exactly lies at the root of the different L1 groups' more privately held preference for English on the solidarity dimension. It could, for instance, be the result of a Montreal-based social identity that encompasses English as the common ingroup language (see Labelle and Salée 2001; Kircher 2016b). Yet, further research is necessary to ascertain this. Moreover, it should be noted that as a result of the convenience sample used, no claims can be made regarding the generalisation of this study's findings to the Montreal population at large. Nevertheless, the findings provide meaningful insights into language attitudes among adolescents in Montreal – and the outcomes of the direct and the indirect method that were used as part of this mixed-methods study certainly provide a much more nuanced understanding than any one method could have provided on its own. Only an insight into the participants' more privately held attitudes alongside information on what they considered to be socially acceptable and/or desirable allows for a proper evaluation of the effectiveness of previous language planning measures – and a perspective on possible implications for future language planning measures concerning French in Quebec (see Kircher 2016a for a more detailed discussion).

21.5 Case Study: Language Attitudes in Northern Catalonia

Another mixed-methods protocol can be used to illustrate the issues raised in this chapter – I (Author 2) conducted this study in Northern Catalonia, a traditionally Catalan-speaking region of southern France (see Hawkey 2018 for a full discussion of the study). This area of the eastern Pyrenees is home to the original dialects of Romance that developed into Catalan as speakers moved southward from the ninth century onwards. During the medieval and early modern period, the region formed part of the Kingdom of Aragon, and later, Spain. In 1659, the Treaty of the Pyrenees brought Northern Catalonia under French control, which persists to this day. Over the last century, there has been a large-scale shift towards monolingual usage of French. This is a result of language policy (such as the Jules Ferry Laws of the 1880s, which made French-medium education obligatory for children in the region), mass population movements in the World Wars, and other social and ideological factors. Current survey results estimate that approximately 35 per cent of the region's population

can speak Catalan (Generalitat de Catalunya, University of Perpignan, and Conseil Départemental des Pyrénées-Orientales 2015: 4), though even these figures may be elevated, given the self-report nature of the data. All speakers of Catalan from Northern Catalonia are (at least) natively bilingual with French, and most Catalan speakers are older and rural.

This mixed-methods protocol consisted of three components. Firstly, an attitudes questionnaire was distributed to the wider population of Northern Catalonia, in order to gain knowledge about attitudes towards French and Catalan that are broadly considered socially acceptable. This was done to obtain clear information about the attitudinal and ideological landscape of Northern Catalonia, which could then be used as a basis for the development of subsequent research components. With an idea of the status and solidarity values of French and Catalan, I then conducted a wordlist translation task (as part of a longer interview) with a subset of Catalan-French bilingual participants. The aim of this was to yield phonetic and morphosyntactic variationist data that were amenable to further analysis. Catalan in Northern Catalonia is characterised by extensive variation, with speakers using both supralocal and local variants. Supralocal variants are heavily influenced by standardised Central Catalan (a prestige variety originating in and around Barcelona), while local variants are specific to Northern Catalonia. Examination of these linguistic behaviours in conjunction with the broad attitudinal survey data allowed me to elucidate the links between language attitudes and their associated behaviours. Finally, both the attitudes questionnaire and in-person interviews provided extensive qualitative data, which served to deepen my knowledge of the language ideological situation in Northern Catalonia. The combination of data in this study is thus quantitative (attitudinal survey)/quantitative (translation task)/qualitative (interviews/open-ended survey questions). When viewed in conjunction, these multiple data types not only allowed for an in-depth understanding of attitudes, ideologies, and any associated linguistic behaviours, but also offered a holistic overview of the sociolinguistic situation in Northern Catalonia.

As highlighted by Bryman (2007: 8), a key challenge facing mixed-methods protocols is that of successful integration of the various components so that they are 'mutually illuminating'. As discussed at length in Chapter 6, the two quantitative data sets were coded using Microsoft Excel and analysed using R, thus facilitating integration on a practical level. Importantly, both data sets were included in the same linear regression model, with the attitudinal results serving as independent variables in the analysis of phonetic and morphosyntactic data as dependent variables. The results showed that, for five of eight variables studied, language attitudes functioned as statistically significant predictors of variation (Hawkey 2020). In all cases, if a participant rated Catalan highly on the status dimension, they were more likely to use the supralocal (Central Catalan) variant of a given variable. Similarly, when participants accorded Catalan a high solidarity score, they were more likely to use the local (Northern Catalan) variant of a given variable. These findings demonstrate a clear link between attitude

measurements (as elicited by questionnaire data) and behaviours operating below the level of conscious speaker awareness. In short, if a participant views Catalan as a language of status and potential overt prestige, they will use the prestigious, supralocal variant.

Qualitative data were elicited from two sources – open-ended questions on the attitudes survey and participant interviews. These data were examined following an approach that contained both inductive and deductive elements. Inductively, the broad theme of 'language and space' was found to be prevalent in the data, and this was chosen as the main axis around which to focus the analysis. Then, in a deductive step, my analysis used the key 'language and space' categories identified in Auer and Schmidt (2010) as a means of structuring the findings. These qualitative data underscored the role of local varieties of Catalan as potent identity markers, and highlighted the numerous ways in which residents of Northern Catalonia use Catalan to subvert the dominant hegemonic order that continues to subjugate the language. However, as we have seen, effective integration of components lies at the heart of mixed-methods approaches, and it was important to integrate the qualitative findings with the quantitative results discussed above. This was achieved through careful consideration of the research questions. For mixed-methods approaches to be more than tokenistic, each component must provide a necessary piece of the puzzle in answering the overarching questions asked by the researcher. This project posed four connected questions that aimed to shed light not only on the contemporary sociolinguistic situation of Northern Catalonia, but also on the connections between language attitudes, linguistic practices, and linguistic human rights. I replicate the questions below from Hawkey (2018: xii), but also specify the associated component of the mixed-methods protocol:

1.   In what ways does macrosociological category membership function as a predictor of language attitudes in Northern Catalonia? – *Quantitative attitudes questionnaire data*.
2.   To what extent do language attitudes correlate with the usage of local or supralocal variants? – *Quantitative wordlist translation task data*.
3.   What are the prevalent language ideologies in Northern Catalonia? – *Qualitative data*.
4.   What are the primary language rights concerns in Northern Catalonia? How can our findings contribute to knowledge about language rights in analogous situations? – *Informed by findings from all three components mentioned above*.

The quantitative and qualitative data were all required to answer the first three questions above, and these insights were necessary to provide a holistic answer to the final language policy question. This case study makes use of a quantitative/quantitative/qualitative structure and shows how successful integration of different components is important in effective mixed-methods scholarship. Such integration can be achieved practically (using the same software and programmes

to code data from multiple quantitative components) and analytically (using data from different quantitative components in the same model). Moreover, successful integration can be guaranteed by ensuring that all components respond to the same set of connected research questions.

21.6   Further Important Considerations

As this chapter has shown, there are many advantages to using mixed-methods approaches to the study of language attitudes. Provided that the methods are genuinely integrated from the earliest stages of research planning and design, right through the analysis and interpretation of the findings, mixed-methods approaches allow for much more nuanced, balanced, and comprehensive insights into the nature of language attitudes – as well as attitude constellations in different contexts – than any method could provide on its own.

However, mixed-methods approaches are evidently more time-consuming and require more resources than individual methods do. This may be off-putting to many researchers, and especially those with tight financial constraints and/or those who are under pressure to produce frequent and numerous publications. It goes beyond the scope of this chapter (and beyond the knowledge of the authors) to provide advice on how to deal with systemic issues such as these. Nevertheless, in this context, it is worth pointing out that if a researcher lacks the time and resources to use more than one method, in many cases they do at least have the option to collect different types of data by means of the same method. In fact, studies that do so are frequently also categorised as being mixed methods (e.g. Tashakkori and Creswell 2007). In the social and behavioural sciences at large, it is not uncommon to elicit different data types – often qualitative as well as quantitative – by means of the same research instrument (e.g. Johnstone and Kiesling 2008; see also Meyerhoff et al. 2015). There are also examples of language attitudes studies that have done this: for instance, the perceptual dialectology research presented in Niedzielski and Preston (2003) and Montgomery (2014; see also Chapter 11) as well as the questionnaire-based investigation of language attitudes and ideologies discussed in Kircher and Fox (2019; 2021). The triangulation of different data types from the same method does not hold quite as many advantages as the triangulation of data from different research methods. For example, as noted above, combining different methods can at least partly eliminate the drawbacks and difficulties associated with each individual method (Krug and Sell 2013) – but evidently, this is not the case when the same method is used to collect different data types. Nevertheless, the elicitation of different data types by means of the same method does permit a better understanding of language attitudes than considering only one type of data.

Overall, this chapter has illustrated three main reasons for using mixed-methods approaches: firstly, because they enable the confirmation or corroboration of findings; secondly, because mixing methods allows researchers to

develop their research instruments and analyses; and thirdly, because using mixed-methods approaches can bring to the fore apparently paradoxical, yet highly rational, attitude constellations which allow for a deeper understanding of the subject matter (Rossman and Wilson 1985; Johnson et al. 2007; see also Ryan et al. 1988).

As the chapter has shown, one of the key challenges of using mixed-methods research to investigate language attitudes lies in dealing with the ontological and epistemological challenges that the genuine integration of methods can entail. However, this is also where some of the greatest benefits can arise. Language attitudes studies are an integral part of the social psychology of language, the sociology of language, sociolinguistics, applied linguistics, and communication studies – and as noted in the introduction to this volume, one of the most notable trends in recent years has been the growing agreement among researchers that 'cross-fertilization is desirable' in both theory and practice (Dewaele 2009: 186). Yet, while it may be considered desirable, cross-fertilisation is certainly not always evident. It is therefore hoped that this book encourages language attitudes research, especially by means of mixed-methods approaches. Moreover, it is hoped that the book's comprehensive overview of the different types of methods – as well as the discussion of significant overarching issues that go beyond individual methods – facilitates interdisciplinary exchanges among language attitudes researchers. Ideally, these exchanges may then allow for the development of attitude theory and contributions to language planning that aims to promote social equality in communities where this is needed.

Suggested further readings

Angouri (2018); Bryman (2004); Bryman (2007); Morse (2003); Tashakkori and Creswell (2007)

References

Abrams, D. and M. A. Hogg. 1987. Language attitudes, frames of reference, and social identity: A Scottish dimension. *Journal of Language and Social Psychology* 6.3: 201–213.

Abrams, J. R., V. Barker, and H. Giles. 2009. An examination of the validity of the Subjective Vitality Questionnaire. *Journal of Multilingual and Multicultural Development* 30.1: 59–72.

Adam, R. 2016. Unimodal bilingualism in the Deaf community: Language contact between two sign languages in Australia and the United Kingdom. Unpublished PhD dissertation, University College London.

Adams, Z. 2019. The relationship between implicit and explicit attitudes to British accents in enhancing the persuasiveness of children's oral health campaigns. *Linguistics Vanguard* 5.s1: 20180008.

Adelung, J. C. 1781. *Deutsche Sprachlehre. Zum Gebrauche der Schulen in den Königl. Preuß. Landen*. Berlin: Christian Friedrich Voß und Sohn.

Agheyisi, R. and J. A. Fishman. 1970. Language attitude studies: A brief survey of methodological approaches. *Anthropological Linguistics* 12.5: 137–157.

Agresti, A. 2010. *Analysis of Ordinal Categorical Data*. 2nd ed. Hoboken: Wiley.

Ajzen, I. 1988. *Attitudes, Personality and Behaviour*. Milton Keynes: Open University Press.

Algom, D., E. Chajut, and S. Lev. 2004. A rational look at the emotional Stroop phenomenon: A generic slowdown, not a Stroop effect. *Journal of Experimental Psychology: General* 133.3: 323–338.

Allgemeine Schulordnung, für die deutschen Normal- Haupt- und Trivialschulen in sämmtlichen Kaiserl. Königl. Erbländern d. d. Wien den 6ten December 1774. Vienna: Johann Thomas Edlen von Trattner. National Archives of Austria: AVA Unterricht StHK Teil 1, K. 87.

Allport, G. W. 1935. Attitudes. In C. Murchison, ed. *Handbook of Social Psychology*. Worchester: Clark University Press, 798–844.

Allport, G. W. and H. Cantril. 1934. Judging personality from voice. *Journal of Social Psychology* 5.1: 37–55.

Álvarez-Mosquera, P. 2017. The use of the Implicit Association Test (IAT) for sociolinguistic purposes in South Africa. *Language Matters* 48.2: 69–90.

Anderson, T. K. and A. J. Toribio. 2007. Attitudes towards lexical borrowing and intra-sentential code-switching among Spanish-English bilinguals. *Spanish in Context* 4.2: 217–240.

Anderwald, L. 2016. *Language between Description and Prescription: Verbs and Verb Categories in Nineteenth-Century Grammars of English*. Oxford: Oxford University Press.

Androutsopoulos, J. 2011. Language change and digital media: A review of conceptions and evidence. In T. Kristiansen and N. Coupland, eds. *Standard Languages and Language Standards in a Changing Europe*. Oslo: Novus, 145–161.

Angouri, J. 2018. Quantitative, qualitative, mixed or holistic research? Combining methods in linguistic research. In L. Litosseliti, ed. *Research Methods in Linguistics*. 2nd ed. London: Bloomsbury, 35–56.

Angus, D. and C. Gallois. 2018. New methodological approaches to intergroup communication. In H. Giles and J. Harwood, eds. *The Oxford Encyclopedia of Intergroup Communication*. Vol. 2. New York: Oxford University Press, 163–179.

Anisfeld, M., N. Bogo, and W. E. Lambert. 1962. Evaluational reactions to accented English speech. *Journal of Abnormal and Social Psychology* 65.4: 223–231.

Anthony, L. and C. Hardaker. 2020. FireAnt (Version 2.0.2). Tokyo: Waseda University. www.laurenceanthony.net/software/fireant.

Appel, R. and P. Muysken. 1987. *Language Contact and Bilingualism*. London: Edward Arnold.

Årman, H. 2011. Ett attitydexperiment med språkpolitiska konsekvenser. *Språk och stil* 21: 204–209.

Arredondo, M. M. and S. A. Gelman. 2019. Do varieties of Spanish influence U.S. Spanish–English bilingual children's friendship judgments? *Child Development* 90.2: 655–671.

Arredondo, M. M., X.-S. Hu, T. Satterfield, A. T. Riobóo, S. A. Gelman, and I. Kovelman. 2019a. Bilingual effects on lexical selection: A neurodevelopmental perspective. *Brain and Language* 195: ref. no. 104640.

Arredondo, M. M., X.-S. Hu, E. Seifert, T. Satterfield, and I. Kovelman. 2019b. Bilingual exposure enhances left IFG specialization for language in children. *Bilingualism: Language and Cognition* 22.4: 783–801.

Aslin, R. N. 2007. What's in a look? *Developmental Science* 10.1: 48–53.

Atagi, N. and C. M. Sandhofer. 2019. Early language environments predict aspects of explicit language awareness development. *Language Learning* 70.2: 464–505.

Atkinson, D. and H. Kelly-Holmes. 2016. Exploring language attitudes and ideologies in university students' discussion of Irish in a context of increasing language diversity. *Language and Intercultural Communication* 16.2: 199–215.

Audacity Team. 2020. Audacity®: Free Audio Editor and Recorder. www.audacityteam.org.

Auer, A., C. Peersman, S. Pickl, G. Rutten, and R. Vosters. 2015. Historical sociolinguistics: The field and its future. *Journal of Historical Sociolinguistics* 1.1: 1–12.

Auer, P. and J. E. Schmidt. 2010. *Language and Space: Theories and Methods*. Berlin: De Gruyter Mouton.

Ayres-Bennett, W. 2004. *Sociolinguistic Variation in Seventeenth-Century France: Methodology and Case Studies*. Cambridge: Cambridge University Press.

Ayres-Bennett, W. 2006. Reading the Remarqueurs: Changing perceptions of 'classic' texts. *Historiographia Linguistica* 33.3: 263–302.

Ayres-Bennett, W. and J. Bellamy. 2021. Introduction. In W. Ayres-Bennett and J. Bellamy, eds. *Handbook of Language Standardization*. Cambridge: Cambridge University Press, 1–24.

Ayres-Bennett, W. and I. Tieken-Boon van Ostade. 2016. Prescriptivism in a comparative perspective: The case of France and England. In I. Tieken-Boon van Ostade and

C. Percy, eds. *Prescription and Tradition in Language: Establishing Standards across Time and Space*. Bristol: Multilingual Matters, 105–120.

Babcock, R. D. 2015. Rhetorical argument, folk linguistics, and content-oriented discourse analysis: A follow-up study. *Ampersand* 2: 61–69.

Babel, M. 2010. Dialect divergence and convergence in New Zealand English. *Language in Society* 39.4: 437–456.

Babel, M. 2012. Evidence for phonetic and social selectivity in spontaneous phonetic imitation. *Journal of Phonetics* 40.1: 177–189.

Babel, M., B. Senior, and S. Bishop. 2019. Do social preferences matter in lexical retuning? *Laboratory Phonology* 10.1: 4.

Bain, R. 1928. An attitude on attitude research. *American Journal of Sociology* 33.6: 940–957.

Baker, C. 1992. *Attitudes and Language*. Clevedon: Multilingual Matters.

Ball, P. 1983. Stereotypes of Anglo-Saxon and non-Anglo-Saxon accents: Some exploratory Australian studies with the matched-guise technique. *Language Sciences* 5.2: 163–183.

Ballinger, S., M. Brouillard, A. Ahooja, R. Kircher, L. Polka, and K. Byers-Heinlein. 2020. Intersections of official and family language policy in Quebec. *Journal of Multilingual and Multicultural Development*. Online ahead of print: 10.1080/01434632.2020.1752699.

Bamberg, M. 1997. Positioning between structure and performance. *Journal of Narrative and Life History* 7.1–4: 335–342.

Bamman, D., J. Eisenstein, and T. Schnoebelen. 2014. Gender identity and lexical variation in social media. *Journal of Sociolinguistics* 18.2: 135–160.

Banaji, M. R. and L. Heiphetz. 2010. Attitudes. In S. T. Fiske, D. T. Gilbert, and G. Lindzey, eds. *The Handbook of Social Psychology*. 5th ed. Oxford: Wiley, 353–393.

Bar-Anan, Y. and B. A. Nosek. 2014. A comparative investigation of seven indirect attitude measures. *Behavior Research Methods* 46.3: 668–688.

Baranowski, M. 2017. Class matters: The sociolinguistics of GOOSE and GOAT in Manchester English. *Language Variation and Change* 29.3: 301–339.

Barbour, R. 2007. *Doing Focus Groups*. London: SAGE.

Barbour, R. and D. L. Morgan, eds. 2017. *A New Era in Focus Group Research: Challenges, Innovation and Practice*. London: Palgrave Macmillan.

Bargh, J. 2006. What have we been priming all these years? On the development, mechanisms, and ecology of nonconscious social behavior. *European Journal of Social Psychology* 36.2: 147–168.

Baron, A. S. and M. R. Banaji. 2006. The development of implicit attitudes: Evidence of race evaluations from ages 6 and 10 and adulthood. *Psychological Science* 17.1: 53–58.

Bashiruddin, A. 2013. Reflections on translating qualitative research data: Experiences from Pakistan. *International Journal of Applied Linguistics* 23.3: 357–367.

Bates, D., M. Maechler, B. Bolker, and S. Walker. 2015. Fitting linear mixed-effects models using lme4. *Journal of Statistical Software* 67.1: 1–48.

Bauman, H.-D. L. and J. Murray. 2017. Sign languages. In O. Garcia, N. Flores, and M. Spotti, eds. *The Oxford Handbook of Language and Society*. Oxford: Oxford University Press, 243–260.

Bayard, D., A. Weatherall, C. Gallois, and J. Pittam. 2001. Pax Americana? Accent attitudinal evaluations in New Zealand, Australia, and America. *Journal of Sociolinguistics* 5.1: 22–49.

Beal, J. C. 2012. 'Á la mode de Paris': Linguistic patriotism and francophobia in 18th-century Britain. In C. Percy and M. C. Davidson, eds. *The Languages of Nation: Attitudes and Norms*. Bristol: Multilingual Matters, 141–154.

Beal, J. C. 2019. Enregisterment and historical sociolinguistics. In S. Jansen and L. Siebers, eds. *Processes of Change: Studies in Late Modern and Present-Day English*. Amsterdam: John Benjamins, 7–24.

Beckett, C. and S. Clegg. 2007. Qualitative data from a postal questionnaire: Questioning the presumption of the value of presence. *International Journal of Social Research Methodology* 10.4: 307–317.

Begus, K., T. Gliga, and V. Southgate. 2016. Infants' preferences for native speakers are associated with an expectation of information. *Proceedings of the National Academy of Sciences, November 1*, 113.44: 12397–12402.

Bell, A. and P. Garrett, eds. 1998. *Approaches to Media Discourse*. Oxford: Blackwell.

Bellamy, J. 2012. *Language Attitudes in England and Austria: A Sociolinguistic Investigation into Perceptions of High and Low-Prestige Varieties in Manchester and Vienna*. Stuttgart: Franz Steiner.

Bender, E. M. 2005. On the boundaries of linguistic competence: Matched-guise experiments as evidence of knowledge of grammar. *Lingua* 115.11: 1579–1598.

Berk-Seligson, S. 1984. Subjective reactions to phonological variation in Costa Rican Spanish. *Journal of Psycholinguistic Research* 13: 415–442.

Berl, R. E. W., A. N. Samarasinghe, F. M. Jordan, and M. C. Gavin. 2020. The Position-Reputation-Information (PRI) scale of individual prestige. *PLoS ONE* 15.6: e0234428.

Bermeitinger, C. 2015. Priming. In Z. Jin, ed. *Exploring Implicit Cognition: Learning, Memory, and Social-Cognitive Processes*. Hershey: Information Science Reference, 16–61.

Bernard, A. 2008. Les repercussions sociales et politiques de la loi 101. In M. Plourde and P. Georgeault, eds. *Le français au Québec: 400 ans d'histoire et de vie*. Montreal: Fides, 360–368.

Beukeboom, C. J. 2014. Mechanisms of linguistic bias: How words reflect and maintain stereotypic expectancies. In J. Laszlo, J. Forgas, and O. Vincze, eds. *Social Cognition and Communication*. New York: Psychology Press, 313–330.

Bishop, H., N. Coupland, and P. Garrett. 2005. Conceptual accent evaluation: Thirty years of accent prejudice in the UK. *Acta Linguistica Hafniensia: International Journal of Linguistics* 37.1: 131–154.

Blackledge, A. and A. Creese. 2010. *Multilingualism*. London: Continuum.

Blommaert, J., ed. 1999. *Language Ideological Debates*. Berlin: Mouton de Gruyter.

Blommaert, J. 2005. *Discourse. A Critical Introduction*. Cambridge: Cambridge University Press.

Bloomfield, L. 1933. *Language*. New York: Henry Holt.

Bloor, M., J. Frankland, M. Thomas, and K. Robson. 2001. *Focus Groups in Social Research*. London: SAGE.

Bock-Côté, M. 2014. 'Bonjour/Hi?' http://www.journaldemontreal.com/2014/02/25/bonjour/hi.

Bodenhausen, G. V., S. K. Kang, and D. Peery. 2012. Social categorization and the perception of social groups. In S. T. Fiske and C. N. Macrae, eds. *The SAGE Handbook of Social Cognition*. Thousand Oaks: SAGE, 311–329.

Boersma, P. and D. Weenink. 2020. *Praat: Doing phonetics by computer*. Version 6.1.09. http://www.praat.org/.

Bohner, G. 2001. Attitudes. In M. Hewstone and W. Stroebe, eds. *Introduction to Social Psychology*. 3rd ed. Oxford: Blackwell, 239–282.

Bourdieu, P. 1991. *Language and Symbolic Power*. Cambridge: Harvard University Press.

Bourgeade, P. 1991. *Chroniques du français quotidien*. Paris: Belfond.

Bourhis, R. Y. 1984. Cross-cultural communication in Montreal: Two field studies since Bill 101. *International Journal for the Sociology of Language* 46: 33–47.

Bourhis, R. Y. 2001. Reversing language shift in Quebec. In J. A. Fishman, ed. *Can Threatened Languages Be Saved? Reversing Language Shift, Revisited: A 21st Century Perspective*. Clevedon: Multilingual Matters, 101–141.

Bourhis, R. Y. and H. Giles. 1976. The language of cooperation in Wales: A field study. *Language Sciences*. 42: 13–16.

Bourhis, R. Y. and A. Maass. 2005. Linguistic prejudice and stereotypes. In U. Ammon, N. Dittmar, K. J. Mattheier, and P. Trudgill, eds. *Sociolinguistics: An International Handbook of the Science of Language and Society*. Vol. 2. 2nd ed. Berlin: de Gruyter, 1587–1601.

Bourhis, R. Y., H. Giles, and W. E. Lambert. 1975. Social consequences of accommodating one's style of speech: A cross-national investigation. *Linguistics* 13.166: 55–71.

Bourhis, R. Y., H. Giles, and D. Rosenthal. 1981. Notes on the construction of a subjective vitality questionnaire for ethnolinguistic groups. *Journal of Multilingual and Multicultural Development* 2.2: 145–155.

Bourhis, R. Y., H. Giles, and H. Tajfel. 1973. Language as a determinant of Welsh identity. *European Journal of Social Psychology* 3.4: 447–460.

Bourhis, R. Y., E. Montaruli, and C. E. Amiot. 2007. Language planning and French–English bilingual communication: Montreal field studies from 1977 to 1997. *International Journal for the Sociology of Language* 185: 187–224.

Bourhis, R. Y., I. Sachdev, M. Ehala, and H. Giles. 2019. Assessing 40 years of group vitality research and future directions. *Journal of Language and Social Psychology* 38.4: 409–422.

Bradac, J. J. 1990. Language attitudes and impression formation. In H. Giles and W. P. Robinson, eds. *Handbook of Language and Social Psychology*. Chichester: Wiley, 387–412.

Bradac, J. J. and R. Wisegarver. 1984. Ascribed status, lexical diversity, and accent: Determinants of perceived status, solidarity, and control of speech style. *Journal of Language and Social Psychology* 3.4: 239–255.

Brannen, J. and R. Pattman. 2005. Work-family matters in the workplace: The use of focus groups in a study of a UK social services department. *Qualitative Research* 5.4: 523–542.

Braun, V. and V. Clarke. 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology* 3.2: 77–101.

Breckler, S. J. 1984. Empirical validation of affect, behavior, and cognition as distinct components of attitude. *Journal of Personality and Social Psychology* 47.6: 1191–1205.

Briggs, C. L. 1986. *Learning How to Ask: A Sociolinguistic Appraisal of the Role of the Interview in Social Science Research*. Cambridge: Cambridge University Press.

British Sign Language Corpus Project. 2018. https://bslcorpusproject.org.

Brown, C. and W. Cichocki. 1995. Listeners' reactions to four French accents: A study of gender as a variable in linguistic attitudes. *Linguistica Atlantica* 17: 45–62.

Brown, J. D. 2009. Open-response items in questionnaires. In J. Heigham and R. A. Croker, eds. *Qualitative Research in Applied Linguistics: A Practical Introduction*. Houndmills: Palgrave Macmillan, 200–219.

Brown, T. A. 2006. *Confirmatory Factor Analysis for Applied Research*. New York: Guilford Press.

Brugge, D., T. Edgar, K. George, J. Heung, and M. B. Laws. 2009. Beyond literacy and numeracy in patient provider communication: Focus groups suggest roles for empowerment, provider attitude and language. *BMC Public Health* 9.354.

Bryman, A. 2004. Triangulation. In M. S. Lewis-Beck, A. Bryman, and T. Futing Liao, eds. *The SAGE Encyclopedia of Social Science Research Methods*. Thousand Oaks: SAGE, 1142–1143.

Bryman, A. 2007. Barriers to integrating quantitative and qualitative research. *Journal of Mixed Methods Research* 1.1: 8–22.

Buchstaller, I. 2006. Social stereotypes, personality traits and regional perception displaced: Attitudes towards the 'new' quotatives in the U.K. *Journal of Sociolinguistics* 10.3: 362–381.

Burns, S., P. A. Matthews, and E. Nolan-Conroy. 2001. Language attitudes. In C. Lucas, ed. *The Sociolinguistics of Sign Languages*. Cambridge: Cambridge University Press, 181–216.

Busch, B. 2012. The linguistic repertoire revisited. *Applied Linguistics* 33.5: 503–523.

Busch, B. 2018. The language portrait in multilingualism research: Theoretical and methodological considerations. *Working Papers in Urban Language and Literacies* 236: 1–13.

Bush, C. N. 1967. Some acoustic parameters of speech and their relationship to the perception of dialect difference. *TESOL Quarterly* 1.3: 20–30.

Butler, J., C. Floccia, J. Goslin, and R. Panneton. 2011. Infants' discrimination of familiar and unfamiliar accents in speech. *Infancy* 16.4: 392–417.

Buttelmann, D., N. Zmyj, M. Daum, and M. Carpenter. 2013. Selective imitation of in-group over out-group members in 14-month-old infants. *Child Development* 84.2: 422–428.

Butters, R. R. 1991. Review of Dennis Preston, *Perceptual Dialectology*. *Language in Society* 20.2: 294–299.

Button, K. S., J. P. A. Ioannidis, C. Mokrysz, B. A. Nosek, J. Flint, E. S. J. Robinson, and M. R. Munafò. 2013. Power failure: Why small sample size undermines the reliability of neuroscience. *Nature Reviews Neuroscience* 14: 365–376.

Byers-Heinlein, K., D. A. Behrend, L. M. Said, H. Girgis, and D. Poulin-Dubois. 2017. Monolingual and bilingual children's social preferences for monolingual and bilingual speakers. *Developmental Science* 20.4: e12392.

Byun, K. S., C. de Vos, A. Bradford, U. Zeshan, and S. C. Levinson. 2018. First encounters: Repair sequences in cross-signing. *Topics in Cognitive Science* 10.2: 314–334.

Caillaud, S. and U. Flick. 2017. Focus groups in triangulation contexts. In R. S. Barbour and D. L. Morgan, eds. *A New Era in Focus Group Research: Challenges, Innovation and Practices*. London: Palgrave Macmillan, 155–178.

Callan, V. J., C. Gallois, and P. A. Forbes. 1983. Evaluative reactions to accented English: Ethnicity, sex role, and context. *Journal of Cross-Cultural Psychology* 14.4: 407–426.

Calton, C. 2020. The impact of student and teacher ASL ideologies on the use of English in the ASL classroom. In A. Kusters, E. M. Green, E. Moriarty, and K. Snoddon, eds. *Sign Language Ideologies in Practice*. Berlin: Mouton de Gruyter/Ishara Press, 111–128.

Campbell-Kibler, K. 2006. Listener perceptions of sociolinguistic variables: The case of (ING). Unpublished PhD dissertation, Stanford University. http://www.ling.ohio-state.edu/~kbck/KCK_diss_tocs.html.

Campbell-Kibler, K. 2007. Accent, (ING), and the social logic of listener perceptions. *American Speech* 82.1: 32–64.

Campbell-Kibler, K. 2011. The sociolinguistic variant as a carrier of social meaning. *Language Variation and Change* 22.3: 423–441.

Campbell-Kibler, K. 2012. The Implicit Association Test and sociolinguistic meaning. *Lingua* 122.7: 753–763.

Campbell-Kibler, K. 2013a. Language attitude surveys: Speaker evaluation studies. In C. Mallinson, B. Childs, and G. van Herk, eds. *Data Collection in Sociolinguistics: Methods and Applications*. New York: Routledge, 142–146.

Campbell-Kibler, K. 2013b. Connecting attitudes and language behavior via implicit sociolinguistic cognition. In T. Kristiansen and S. Grondelaers, eds. *Language (De) standardisations in Late Modern Europe: Experimental Studies*. Oslo: Novus, 307–329.

Campbell-Kibler, K. and A. Torelli. 2012. Tracking enregisterment through online social media. Presented at Regional Varieties, Language Shift and Linguistic Identities, Birmingham, 12–15 September.

Cantos, P. 2012. The use of linguistic corpora for the study of linguistic variation and change: Types and computational applications. In J. M. Hernández-Campoy and J. C. Conde-Silvestre, eds. *The Handbook of Historical Sociolinguistics*. Chichester: Wiley Blackwell, 99–122.

Cardona, S. 1980. Defensa de La Enseñanza Del Lenguaje. *Boletín de La Academia Puertorriqueña de La Lengua Española* 8.1: 5–16.

Cargile, A. C. 1997. Attitudes toward Chinese-accented speech: An investigation in two contexts. *Journal of Language and Social Psychology* 16.4: 434–443.

Cargile, A. C. 2000. Evaluations of employment suitability: Does accent always matter? *Journal of Employment Counseling* 37.3: 165–177.

Cargile, A. C. and J. J. Bradac. 2001. Attitudes toward language: A review of speaker-evaluation research and a general process model. In W. B. Gudykunst, ed. *Communication Yearbook 25*. Mahwah: Lawrence Erlbaum, 347–382.

Cargile, A. C. and H. Giles. 1997. Understanding language attitudes: Exploring listener affect and identity. *Language and Communication* 17.3: 195–217.

Cargile, A. C. and H. Giles. 1998. Language attitudes toward varieties of English: An American-Japanese context. *Journal of Applied Communication Research* 26.3: 338–356.

Cargile, A. C., J. Takai, and J. I. Rodríguez. 2006. Attitudes toward African–American Vernacular English: A US export to Japan? *Journal of Multilingual and Multicultural Development* 27.6: 443–456.

Cargile, A. C., H. Giles, E. B. Ryan, and J. J. Bradac. 1994. Language attitudes as a social process: A conceptual model and new directions. *Language and Communication* 14.3: 211–236.

Carlson, H. K. and M. A. McHenry. 2006. Effect of accent and dialect on employability. *Journal of Employment Counseling* 43.2: 70–81.

Carmichael, K. 2016. Place-linked expectations and listener awareness of regional accents. In A. Babel, ed. *Awareness and Control in Sociolinguistic Research*. Cambridge: Cambridge University Press, 152–176.

Carr, T. H., C. McCauley, R. D. Sperber, and C. M. Parmelee. 1982. Words, pictures, and priming: On semantic activation, conscious identification, and the automaticity of information processing. *Journal of Experimental Psychology: Human Perception and Performance*, 8.6: 757–777.

Carranza, M. and E. B. Ryan. 1975. Evaluative reactions of bilingual Anglo- and Mexican American adolescents towards speakers of English and Spanish. *International Journal of the Sociology of Language* 6: 83–104.

Carrie, E. 2017. 'British is professional, American is urban': Attitudes towards English reference accents in Spain. *International Journal of Applied Linguistics* 27.2: 427–447.

Carrie, E. and R. Drummond. n.d. *The Accentism Project*. http://www.accentism.org/.

Carrie, E. and R. M. McKenzie. 2018. American or British? L2 speakers' recognition and evaluations of accent features in English. *Journal of Multilingual and Multicultural Development* 39.4: 313–328.

Casesnoves Ferrer, R. and D. Sankoff. 2003. Identity as the primary determinant of language choice in Valencia. *Journal of Sociolinguistics* 7.1: 50–64.

Castillo-Montoya, M. 2016. Preparing for interview research: The interview protocol refinement framework. *Qualitative Report* 21.5: 811–831.

Cavallaro, F., M. F. Sielhamer, H. Y. Yee, and N. B. Chin. 2018. Attitudes to Mandarin Chinese varieties in Singapore. *Journal of Asian Pacific Communication* 28.2: 195–225.

Cellard, J. 1979. *La vie du langage: Chroniques 1971–1975, Le Monde*. Paris: Le Robert.

Chakrani, B. 2015. Arabic interdialectal encounters: Investigating the influence of attitudes on language accommodation. *Language and Communication* 41: 17–27.

Chan, E., O. Ybarra, and N. Schwarz. 2006. Reversing the affective congruency effect: The role of target word frequency of occurrence. *Journal of Experimental Social Psychology* 42.3: 365–372.

Chappell, W. 2016. On the social perception of intervocalic /s/ voicing in Costa Rican Spanish. *Language Variation and Change* 28.3: 357–378.

Cheshire, J. and S. Fox. 2016. From sociolinguistic research to English language teaching. In K. P. Corrigan and A. Mearns, eds. *Creating and Digitizing Language Corpora*. Basingstoke: Palgrave Macmillan, 265–290.

Chevalier, B. A. M., B. M. Watson, M. A. Barras, and W. N. Cottrell. 2017. Investigating strategies used by hospital pharmacists to effectively communicate with patients during medication counselling. *Health Expectations* 20.5: 1121–1132.

Chioti, M. 2019. The effect of priming on accent attitudes: An examination of their affective and cognitive bases. Presented at UK Language Variation and Change 12, London, 3–5 September.

Cho, J. Y. and E.-H. Lee. 2014. Reducing confusion about grounded theory and qualitative content analysis: Similarities and differences. *The Qualitative Report* 19.64: 1–20.

Christensen, R. H. B. 2015. *Ordinal-regression models for ordinal data*. R Package Version 2015.

Christensen, R. H. B. and P. B. Brockhoff. 2013. Analysis of sensory ratings data with cumulative link models. *Journal de La Société Française de Statistique* 154.3: 58–79.

Cieri, C. 2011. Making a field recording. In M. Di Paolo and M. Yaeger-Dror, eds. *Sociophonetics: A Student's Guide*. Abingdon: Routledge, 24–35.

Clachar, A. 1997. Resistance to the English language in Puerto Rico: Toward a theory of language and intergroup distinctiveness. *Linguistics and Education* 9.1: 69–98.

Clopper, C. G. and D. B. Pisoni. 2004. Some acoustic cues for the perceptual categorization of American English regional dialects. *Journal of Phonetics* 32.1: 111–140.

Clopper, C. G. and A. Walker. 2017. Effects of lexical competition and dialect exposure on phonological priming. *Language and Speech* 60.1: 85–109.

Codó, E. 2008. Interviews and questionnaires. In L. Wei and M. G. Moyer, eds. *The Blackwell Guide to Research Methods in Bilingualism and Multilingualism*. Malden: Blackwell, 158–176.

Cohen, L. and L. Manion. 1994. *Research Methods in Education*. London and New York: Routledge.

Cohen, M. 1950. *Regards sur la langue française*. Paris: Sedes.

Collins, A. M. and E. F. Loftus. 1975. A spreading-activation theory of semantic processing. *Psychological Review* 82.6: 407–428.

Conama, J. B. 2020. 35 years and counting! An ethnographic analysis of sign language ideologies within the Irish Sign Language recognition campaign. In A. Kusters, E. M. Green, E. Moriarty, and K. Snoddon, eds. *Sign Language Ideologies in Practice*. Berlin: Mouton de Gruyter/Ishara Press, 265–286.

Conde-Silvestre, J. C. and J. M. Hernández-Campoy. 2012. Introduction. In J. M. Hernández-Campoy and J. C. Conde-Silvestre, eds. *The Handbook of Historical Sociolinguistics*. Chichester: Wiley Blackwell, 1–8.

Cook, G. 2011. Discourse analysis. In J. Simpson, ed. *The Routledge Handbook of Applied Linguistics*. Abingdon: Routledge, 431–444.

Cook, S., N. Fallon, H. Wright, A. Thomas, T. Giesbrecht, M. Field, and A. Stancak. 2015. Pleasant and unpleasant odors influence hedonic evaluations of human faces: An event-related potential study. *Frontiers in Human Neuroscience* 9: 661.

Cooper, A. 2015. Signed language sovereignties in Viet Nam: Deaf community responses to ASL-based tourism. In M. Friedner and A. Kusters, eds. *It's a Small World: International Deaf Spaces and Encounters*. Washington: Gallaudet University Press, 95–111.

Cooper, R. L. 1975. Introduction to language attitudes II. Special issue of *International Journal of the Sociology of Language* 6: 5–9.

Cooper, R. L. 1989. *Language Planning and Social Change*. Cambridge: Cambridge University Press.

Corriveau, K. H., K. D. Kinzler, and P. L. Harris. 2013. Accuracy trumps accent in children's endorsement of object labels. *Developmental Psychology* 49.3: 470–479.

Cotter, C. 2003. Prescription and practice: Motivations behind change in news discourse. *Journal of Historical Pragmatics* 4.1: 45–74.

Couper-Kuhlen, E. and M. Selting. 2017. *Interactional Linguistics: Studying Language in Social Interaction*. Cambridge: Cambridge University Press.

Coupland, N. 2014. Sociolinguistic change, vernacularization and broadcast British media. In J. Androutsopoulos, ed. *Mediatization and Sociolinguistic Change*. Berlin: Mouton de Gruyter, 67–96.

Coupland, N. and H. Bishop. 2007. Ideologised values for British accents. *Journal of Sociolinguistics* 11.1: 74–93.

Cramer, J. 2010. The effect of borders on the linguistic production and perception of regional identity in Louisville, Kentucky. Unpublished PhD dissertation, University of Illinois at Urbana-Champaign. https://www.ideals.illinois.edu/bitstream/handle/2142/18426/Cramer_Jennifer.pdf?sequence=1.

Cramer, J. 2016. Rural vs. urban: Perception and production of identity in a border city. In J. Cramer and C. Montgomery, eds. *Cityscapes and Perceptual Dialectology: Global Perspectives on Non-Linguists' Knowledge of the Dialect Landscape*. Boston: de Gruyter, 27–53.

Cramer, J. 2018. The emic and etic in perceptual dialectology. In B. E. Evans, E. J. Benson, and J. N. Stanford, eds. *Language Regard: Methods, Variation and Change*. Cambridge: Cambridge University Press, 62–81.

Cramer, J. and C. Montgomery, eds. 2016. *Cityscapes and Perceptual Dialectology: Global Perspectives on Non-Linguists' Knowledge of the Dialect Landscape*. Boston: De Gruyter Mouton.

Crasborn, O. 2015. Transcription and notation methods. In E. Orfanidou, B. Woll, and G. Morgan, eds. *Research Methods in Sign Language Studies*. Oxford: Wiley Blackwell, 74–88.

Creber, C. and H. Giles. 1983. Social context and language attitudes: The role of formality–informality of the setting. *Language Sciences* 5.2: 155–161.

Creel, S. C. 2018. Accent detection and social cognition: Evidence of protracted learning. *Developmental Science* 21.2: e12524.

Creswell, J. W. and V. L. Plano Clark. 2010. *Designing and Conducting Mixed Methods Research*. 2nd ed. Thousand Oaks: SAGE.

Cristia, A., Y. Minagawa-Kawai, N. Egorova, J. Gervain, L. Filippin, D. Cabrol, and E. Dupoux. 2014. Neural correlates of infant accent discrimination: An FNIRS study. *Developmental Science* 17.4: 628–635.

Cronbach, L. J. 1951. Coefficient alpha and the internal structure of tests. *Psychometrika* 16: 297–334.

Cukor-Avila, P., L. Jeon, P. C. Rector, C. Tiwari, and Z. Shelton. 2012. 'Texas – it's like a whole nuther country': Mapping Texans' perceptions of dialect variation in the Lone Star State. *Texas Linguistics Forum* 55: 10–19.

Cutler, C. 2016. 'Ets jast ma boooooooooooooo': Social meanings of Scottish accents on YouTube. In L. Squires, ed. *English in Computer-Mediated Communication: Variation, Representation, and Change*. Berlin: de Gruyter, 69–101.

Cutler, C. 2019. Metapragmatic comments and orthographic performances of a New York accent on YouTube. *World Englishes* 39.1: 36–53.

Cvencek, D., A. G. Greenwald, and A. N. Meltzoff. 2011. Measuring implicit attitudes of 4-year-olds: The preschool Implicit Association Test. *Journal of Experimental Child Psychology* 109.2: 187–200.

Dahlgreen, W. 2014. Brummie is the least attractive reference (YouGov survey). https://yougov.co.uk/topics/lifestyle/articles-reports/2014/12/09/accent-map2.

Dailey-O'Cain, J. 1997. Geographic and socio-political influences on language ideology and attitudes towards language in post-unification Germany. Unpublished PhD dissertation, University of Michigan, Michigan.

Dailey-O'Cain, J. 2000. The sociolinguistic distribution of and attitudes toward focuser *like* and quotative *like*. *Journal of Sociolinguistics* 4.1: 60–80.

Dailey-O'Cain, J. and G. Liebscher. 2011. Language attitudes, migrant identities and space. *International Journal of the Sociology of Language* 212: 91–133.

Dailey, R. M., H. Giles, and L. L. Jansma. 2005. Language attitudes in an Anglo-Hispanic context: The role of the linguistic landscape. *Language and Communication* 25.1: 27–38.

Danet, B. and S. Herring, eds. 2003. *The Multilingual Internet: Language, Culture and Communication in Instant Messaging, Email and Chat*. Special issue of *Journal of Computer-Mediated Communication* 9.1. https://academic.oup.com/jcmc/issue/9/1.

Dautel, J. B. and K. D. Kinzler. 2017. Once a French speaker, always a French speaker? Bilingual children's thinking about the stability of language. *Cognitive Science* 42. S1: 287–302.

Davies, B. and R. Harré. 1990. Positioning: The discursive production of selves. *Journal for the Theory of Social Behaviour* 20.1: 43–63.

Davies, M. 2002–. *English Corpora*. https://www.english-corpora.org/.

Day, R. R. 1980. The development of linguistic attitudes and preferences. *TESOL Quarterly* 14.1: 27–37.

De Costa, P. I. 2016. *Ethics in Applied Linguistics Research: Language Researcher Narratives*. New York: Routledge.

De Fina, A. and A. Georgakopoulou. 2012. *Analyzing Narrative Discourse and Sociolinguistic Perspectives*. Cambridge: Cambridge University Press.

De Houwer, A. 1999. Environmental factors in early bilingual development: The role of parental beliefs and attitudes. In G. Extra and L. Verhoeven, eds. *Bilingualism and Migration*. Berlin: Mouton de Gruyter, 75–96.

De Houwer, J. 2001. A structural and process analysis of the Implicit Association Test. *Journal of Experimental Social Psychology* 37.6: 443–451.

De Houwer, J., N. Heider, A. Spruyt, A. Roets, and S. Hughes. 2015. The relational responding task: Toward a new implicit measure of beliefs. *Frontiers in Psychology* 6: 319.

De Houwer, J., S. Teige-Mocigemba, A. Spruyt, and A. Moors. 2009. Implicit measures: A normative analysis and review. *Psychological Bulletin* 135.3: 347–368.

De la Zerda Flores, N. and R. Hopper. 1975. Mexican American's evaluations of spoken Spanish and English. *Speech Monographs* 42.2: 91–98.

De Meulder, M. 2019. 'So, why do you sign?': Deaf and hearing new signers, their motivation, and revitalisation policies for sign languages. *Applied Linguistics Review* 10.4: 705–724.

De Meulder, M. and I. Birnie. 2020. Language diaries in the study of language use and language choice: The case of Flemish Sign Language and Scottish Gaelic. *Language Awareness*. 30.3: 217–233.

De Meulder, M. and J. J. Murray. 2017. Buttering their bread on both sides? The recognition of sign languages and the aspirations of deaf communities. *Language Problems and Language Planning* 41.2: 136–158.

De Meulder, M. and K. Snoddon, eds. 2020. *Ideologies in Sign Language Vitality and Revitalisation*. Special issue of *Language and Communication* 74.

De Meulder, M., A. Kusters, and J. Napier. 2022. Researching family language policy in multilingual deaf-hearing families: Using autoethnographic, visual, and narrative methods. In L. Wright and C. Higgins, eds. *Diversifying Family Language Policy*. London: Bloomsbury, 165–189.

De Meulder, M., J. J. Murray, and R. McKee, eds. 2019. *The Legal Recognition of Sign Languages. Advocacy and Outcomes Around the World*. Bristol: Multilingual Matters.

De Meulder, M., A. Kusters, E. Moriarty, and J. J. Murray. 2019. Describe, don't prescribe: The practice and politics of translanguaging in the context of deaf signers. *Journal of Multilingual and Multicultural Development* 40.10: 892–906.

Dearnley, E. 2016. *Translators and their Prologues in Medieval England*. Woodbridge: Boydell and Brewer.

DeCasper, A. J. and W. P. Fifer. 1980. Of human bonding: Newborns prefer their mothers' voices. *Science* 208.4448: 1174–1176.

DeJesus, J. M., H. G. Hwang, J. B. Dautel, and K. D. Kinzler. 2017. Bilingual children's social preferences hinge on accent. *Journal of Experimental Child Psychology* 164: 178–191.

DeJesus, J. M., H. G. Hwang, J. B. Dautel, and K. D. Kinzler. 2018. 'American = English speaker' before 'American = White': The development of children's reasoning about nationality. *Child Development* 89.5: 1752–1767.

Dekker, R. 2002. Introduction. In R. Dekker, ed. *Egodocuments and History. Autobiographical Writing in its Social Context since the Middle Ages*. Hilversum: Verloren, 7–20.

Deumert, A. and W. Vandenbussche, eds. 2003. *Germanic Standardizations: Past to Present*. Amsterdam: John Benjamins.

Dewaele, J.-M. 2009. Perception, attitude and motivation. In V. Cook and L. Wei, eds. *Language Teaching and Learning*. London: Continuum, 163–192.

Dewaele, J.-M. 2013. *Emotions in Multiple Languages*. 2nd ed. Basingstoke: Palgrave Macmillan.

Dewaele, J.-M. 2018. Online questionnaires. In A. Phakiti, P. De Costa, L. Plonsky, and S. Starfield, eds. *The Palgrave Handbook of Applied Linguistics Research Methodology*. Basingstoke: Palgrave MacMillan, 269–286.

Dewaele, J.-M. and J. McCloskey. 2014. Attitudes towards foreign accents among adult multilingual language users. *Journal of Multilingual and Multicultural Development* 36.3: 221–238.

Dewaele, J.-M. and L. Wei. 2014. Attitudes towards code-switching among adult mono- and multilingual language users. *Journal of Multilingual and Multicultural Development* 35.3: 235–251.

Dewaele, J.-M., L. Rolland, and B. Costa. 2019. Planning and conducting ethical interviews: Power, language and emotions. In J. McKinley and K. Rose, eds. *The Routledge Handbook of Research Methods in Applied Linguistics*. London: Routledge, 279–289.

Di Paolo, M. and M. Yaeger-Dror, eds. 2011. *Sociophonetics: A Student's Guide*. Abingdon: Routledge.

Díaz-Campos, M. and J. Killam. 2012. Assessing language attitudes through a matched-guise experiment: The case of consonantal deletion in Venezuelan Spanish. *Hispania* 95.1: 83–102.

Dickinson, J. and B. Young. 2003. *A Short History of Quebec*. Montreal/Kingston: McGill and Queen's University Press.

Dixon, J. A., B. Mahoney, and R. Cocks. 2002. Accents of guilt? Effects of regional accent, race, and crime type on attribution of guilt. *Journal of Language and Social Psychology* 21.2: 162–168.

Dollinger, S. 2015. *The Written Questionnaire in Social Dialectology: History, Theory, Practices*. Amsterdam: John Benjamins.

Domínguez-Rosado, B. 2015. *The Unliking of Language and Puerto Rican Identity: New Trends in Sight*. Newcastle upon Tyne: Cambridge Scholars.

Dorian, N. C. 1981. *Language Death. The Life Cycle of a Scottish Gaelic Dialect*. Philadelphia: University of Pennsylvania Press.

Dorian, N. C. 1998. Western language ideologies and small-language prospects. In L. A. Grenoble and L. J. Whaley, eds. *Endangered Languages: Current Issues and Future Perspectives*. Cambridge: Cambridge University Press, 3–21.

Dörnyei, Z. 2003. *Questionnaires in Second Language Research: Construction, Administration and Processing*. Mahwah: Lawrence Erlbaum.

Dörnyei, Z. 2007. *Research Methods in Applied Linguistics*. Oxford: Oxford University Press.

Dörnyei, Z. and T. Taguchi. 2010. *Questionnaires in Second Language Research: Construction, Administration, and Processing*. 2nd ed. New York: Routledge.

Doyen, S., O. Klein, D. Simons, and A. Cleeremans. 2014. On the other side of the mirror: Priming in cognitive and social psychology. *Social Cognition* 32: 12–32.

Drager, K. 2018. *Experimental Research Methods in Sociolinguistics*. London: Bloomsbury.

Drager, K., J. Hay, and A. Walker. 2010. Pronounced rivalries: Attitudes and speech production. *Te Reo* 53: 27–53.

Drager, K., K. Hardeman Guthrie, R. Schutz, and I. Chik. 2021. Perceptions of style: A focus on fundamental frequency and perceived social characteristics. To appear in L. Hall-Lew, E. Moore, and R. J. Podesva, eds. *Social Meaning and Linguistic Variation: Theorizing the Third Wave*. Cambridge: Cambridge University Press, 176–202.

Dragojevic, M. 2016. Language attitudes as intergroup terrain. In H. Giles and A. Maass, eds. *Advances in Intergroup Communication*. New York: Peter Lang, 51–66.

Dragojevic, M. 2018. Language attitudes. In H. Giles and J. Harwood, eds. *Oxford Research Encyclopedia of Intergroup Communication*. Vol. 2. New York: Oxford University Press, 179–192.

Dragojevic, M. and H. Giles. 2014. The reference frame effect: An intergroup perspective on language attitudes. *Human Communication Research* 40.1: 91–111.

Dragojevic, M. and H. Giles. 2016. I don't like you because you're hard to understand: The role of processing fluency on the language attitudes process. *Human Communication Research* 42.1: 396–420.

Dragojevic, M. and S. Goatley-Soan. 2020. Americans' attitudes towards foreign accents: Evaluative hierarchies and underlying processes. *Journal of Multilingual and Multicultural Development* 43.2: 167–181.

Dragojevic, M., C. Berglund, and T. K. Blauvelt. 2018. Figuring out who's who: The role of social categorization in the language attitudes process. *Journal of Language and Social Psychology* 37.1: 28–50.

Dragojevic, M., H. Giles, and B. M. Watson. 2013. Language ideologies and language attitudes: A foundational framework. In H. Giles and B. Watson, eds. *The Social Meanings of Language, Dialect and Accent: International Perspectives on Speech Styles*. New York: Peter Lang, 1–25.

Dragojevic, M., F. Fasoli, J. Cramer, and T. Rakić. 2021. Toward a century of language attitudes research: Looking back and moving forward. *Journal of Language and Social Psychology* 40.1: 60–79.

Dragojevic, M., H. Giles, A. C. Beck, and N. T. Tatum. 2017. The fluency principle: Why foreign accent strength negatively biases language attitudes. *Communication Monographs* 84.3: 385–405.

Dragojevic, M., D. Mastro, H. Giles, and A. Sink. 2016. Silencing nonstandard speakers: A content analysis of accent portrayals on American primetime television. *Language in Society* 45.1: 59–85.

Drożdżowicz, A. 2021. Bringing back the voice: On the auditory objects of speech perception. *Synthese* 199: 661–687.

Drummond, R. and E. Carrie. 2019. *Manchester Voices. A research project into the accents, dialects and people of Greater Manchester.* https://www.manchestervoices.org/.

Duchêne, A. and M. Heller, eds. 2012. *Language in Late Capitalism: Pride and Profit.* New York: Routledge.

Dunham, Y., A. S. Baron, and M. R. Banaji. 2008. The development of implicit intergroup cognition. *Trends in Cognitive Sciences* 12.7: 248–253.

Durham, M. 2014. Thirty years later: Real-time change and stability in attitudes towards the dialect in Shetland. In R. Lawson, ed. *Sociolinguistics in Scotland*. London: Palgrave Macmillan, 296–318.

Durham, M. 2016. Changing attitudes towards the Welsh English accent: A view from Twitter. In M. Durham and J. Morris, eds. *Sociolinguistics in Wales*. London: Palgrave Macmillan, 181–205.

Eagly, A. H. and S. Chaiken. 1993. *The Psychology of Attitudes*. Orlando: Harcourt Brace Jovanovich College Publishers.

Eagly, A. H. and S. Chaiken. 1998. Attitude structure and function. In D. T. Gilbert, S. T. Fiske, and G. Lindzey, eds. *The Handbook of Social Psychology*. 4th ed. New York: McGraw-Hill, 269–322.

Echeverria, B. 2005. Language attitudes in San Sebastian: The Basque vernacular as challenge to Spanish language hegemony. *Journal of Multilingual and Multicultural Development* 26.3: 249–264.

Eckert, P. 1989. *Jocks and Burnouts: Social identity in the High School*. New York: Teachers College Press.

Eckert, P. 2012. Three waves of variation study: The emergence of meaning in the study of sociolinguistic variation. *Annual Review of Anthropology* 41: 87–100.

Eckert, P. 2014. Ethics in linguistic research. In R. J. Podesva and D. Sharma, eds. *Research Methods in Linguistics*. Cambridge: Cambridge University Press.

Edley, N. and L. Litosseliti. 2010. Contemplating interviews and focus groups. In L. Litosseliti, ed. *Research Methods in Linguistics*. London: Continuum, 155–179.

Edwards, A. and R. Fuchs. 2018. A cluster analysis of attitudes to English in Germany and the Netherlands. *World Englishes* 37.4: 653–667.

Edwards, D. and J. Potter. 1992. *Discursive Psychology*. London: SAGE.

Edwards, J. R. 1982. Language attitudes and their implications among English speakers. In E. B. Ryan and H. Giles, eds. *Attitudes towards Language Variation: Social and Applied Contexts*. London: Edward Arnold, 20–33.

Edwards, J. R. 1994. *Multilingualism*. London: Routledge.

Edwards, J. R. 2013. *Sociolinguistics: A Very Short Introduction*. Oxford: Oxford University Press.

Edwards, J. R. 2017. The sociology of language teaching and learning. In E. Hinkel, ed. *Handbook of Research in Second Language Teaching and Learning*. Vol. 3. London: Routledge, 3–14.

Edwards, J. R. 2020. History, philosophy and the social psychology of language. In A. H. Al-Hoorie and P. D. MacIntyre, eds. *Contemporary Language Motivation Theory: 60 Years Since Gardner and Lambert 1959*. Bristol: Multilingual Matters, 262–282.

Edwards, K. 1990. The interplay of affect and cognition in attitude formation and change. *Journal of Personality and Social Psychology* 59.2: 202–216.

Edwards, T. 2014. Language emergence in the Seattle DeafBlind community. Unpublished PhD dissertation, University of California, Berkeley.

Eimer, M. and F. Schlaghecken. 1998. Effects of masked stimuli on motor activation: Behavioral and electrophysiological evidence. *Journal of Experimental Psychology: Human Perception and Performance* 24.6: 1737–1747.

Eisenstein, J. 2015. Systematic patterning in phonologically-motivated orthographic variation. *Journal of Sociolinguistics* 19.2: 161–188.

Eisenstein, J., B. O'Connor, N. A. Smith, and E. P. Xing. 2014. Diffusion of lexical change in social media. *PLoS ONE* 9.11: e113114.

El-Dash, L. G. and J. Busnardo. 2001. Brazilian attitudes toward English: Dimensions of status and solidarity. *International Journal of Applied Linguistics* 11.1: 57–74.

El-Dash, L. and R. Tucker. 1975. Subjective reactions to various speech styles in Egypt. *International Journal of the Sociology of Language* 6.3: 33–54.

Engelbrecht, H. 1984. *Geschichte des österreichischen Bildungswesens. Erziehung und Unterricht auf dem Boden Österreichs*. Vol. 3: *Von der frühen Aufklärung bis zum Vormärz*. Vienna: Österreichischer Bundesverlag.

ESRI. 2011a. *What is GIS?* http://www.gis.com/content/what-gis.

ESRI. 2011b. *ArcGIS Desktop: Release 10*. Redlands: Environmental Systems Research Institute.

ESRI. 2019. *ArcGIS online*. Redlands: Environmental Systems Research Institute. https://www.arcgis.com/.

ESRI. 2020. *Esri Support GIS Dictionary*. https://support.esri.com/en/other-resources/gis-dictionary.

Esses, V. M. and G. R. Maio. 2002. Expanding the assessment of attitude components and structure: The benefits of open-ended measures. *European Review of Social Psychology* 12.1: 71–101.

Estes, Z. and J. S. Adelman. 2008. Automatic vigilance for negative words in lexical decision and naming: Comment on Larsen, Mercer, and Balota (2006). *Emotion* 8.4: 441–444.

Evans, B. E. 2013. Seattle to Spokane: Mapping perceptions of English in Washington State. *Journal of English Linguistics* 41.3: 268–291.

Fairclough, N. 1992. *Discourse and Social Change*. Cambridge: Polity Press.

Fairclough, N. 1995. *Media Discourse*. Arnold: London.

Fairclough, N. 2013. *Critical Discourse Analysis: The Critical Study of Language*. Abingdon: Routledge.

Fairclough, N. 2014. *Language and Power*. 3rd ed. London: Routledge.

Fairclough, N., J. Mulderrig, and R. Wodak. 2011. Critical Discourse Analysis. In T. A. van Dijk, ed. *Discourse Studies. A Multidisciplinary Introduction*. London: SAGE, 357–378.

Fan, S. P., Z. Liberman, B. Keysar, and K. D. Kinzler. 2015. The exposure advantage: Early exposure to a multilingual environment promotes effective communication. *Psychological Science* 26.7: 1090–1097.

Fantz, R. L. 1964. Visual experience in infants: Decreased attention to familiar patterns relative to novel ones. *Science* 146.3644: 668–670.

Fasold, R. 1984. *The Sociolinguistics of Society*. Oxford: Blackwell.

Fasoli, F. and A. Maass. 2019. The social costs of sounding gay: Voice-based impressions of adoption applicants. *Journal of Language and Social Psychology* 39.1: 112–131.

Faulstich, K. 2008. *Konzepte des Hochdeutschen. Der Sprachnormierungsdiskurs im 18. Jahrhundert*. Berlin: De Gruyter.

Fazio R. H., J. Chen, E. C. McDonel, and S. J. Sherman. 1982. Attitude accessibility, attitude–behavior consistency and the strength of the object–evaluation association. *Journal of Experimental Social Psychology* 18.4: 339–357.

Fazio, R. H., D. M. Sanbonmatsu, M. C. Powell, and F. R. Kardes. 1986. On the automatic activation of attitudes. *Journal of Personality and Social Psychology* 50.2: 229–238.

Fiedler, K. and M. Bluemke. 2005. Faking the IAT: Aided and unaided response control on the Implicit Association Test. *Basic and Applied Social Psychology* 27.4: 307–316.

Field, A. 2009. *Discovering Statistics Using SPSS*. 3rd ed. Thousand Oaks: SAGE.

Field, A. and G. Hole. 2003. *How to Design and Report Experiments*. Thousand Oaks: SAGE.

Fifer, W. P. and C. Moon. 1989. Psychobiology of newborn auditory preferences. *Seminars in Perinatology* 13.5: 430–433.

Filipin, N. Z. 2015. Matched guise technique revisited: Zagreb case study. In A. Peti-Stanti, M.-M. Stanojevi, and G. Antunovi, eds. *Language Varieties between Norms and Attitudes: South Slavic Perspectives. Proceedings from the 2013 CALS Conference*. Frankfurt: Peter Lang, 181–196.

Fishbein, M. and I. Ajzen. 1975. *Belief, Attitude, Intention and Behaviour: An Introduction to Theory and Research*. Reading: Addison-Wesley.

Fisher, W. M., G. R. Doddington, and K. M. Goudie-Marshall. 1986. The DARPA speech recognition research database: Specifications and status. In *Proceedings of the DARPA Speech Recognition Workshop, 12–20 February 1986*, 93–99.

Fishman, J. A. 1969. Bilingual attitudes and behaviors. *Language Sciences* 5: 5–11.

Fishman, J. A. 1970. *Sociolinguistics: A Brief Introduction*. Rowley: Newbury House.

Fishman, J. A. 1976. The Sociology of Language. In J. A. Fishman, ed. *Advances in the Sociology of Language*. Vol. 1. *Basic Concepts, Theories and Problems: Alternative Approaches*. The Hague: Mouton, 217–404.

Fishman, J. A. 1991. *Reversing Language Shift: Theoretical and Empirical Foundations of Assistance to Threatened Languages*. Clevedon: Multilingual Matters.

Fishman, J. A. 2001. Why is it so hard to save a threatened language? In J. Fishman, ed. *Can Threatened Languages Be Saved?* Clevedon: Multilingual Matters, 1–22.

Fishman, J. A. and R. Agheyisi. 1970. Language attitude studies: A brief survey of methodological approaches. *Anthropological Linguistics* 12.5: 137–157.

Fiske, S. T., A. J. C. Cuddy, and P. Glick. 2007. Universal dimensions of social cognition: Warmth and competence. *Trends in Cognitive Sciences* 11.2: 77–83.

Floccia, C., J. Butler, F. Girard, and J. Goslin. 2009. Categorization of regional and foreign accent in 5- to 7-year-old British children. *International Journal of Behavioral Development* 33.4: 366–735.

Forgas, J. and G. Bower. 1987. Mood effects of person-perception judgments. *Journal of Personality and Social Psychology* 53.1: 53–60.

Forgas, J. and S. Moylan. 1989. After the movies: Transient mood and social judgments. *Personality and Social Psychology Bulletin* 13.4: 467–477.

Forster, K. and C. Davis. 1984. Repetition and frequency attenuation in lexical access. *Journal of Experimental Psychology: Learning, Memory, and Cognition* 10.4: 680–698.

Fowler, C. A., G. Wolford, R. Slade, and L. Tassinary. 1981. Lexical access with and without awareness. *Journal of Experimental Psychology: General* 110.3: 341–362.

Fowler, R. 1991. *Language in the News: Discourse and Ideology in the Press*. Abingdon: Routledge.

Franz, N. K. 2011. The unfocused focus group: Benefit or bane? *The Qualitative Report* 16.5: 1380–1388.

Freire-Vidal Y. and E. Graells-Garrido. 2019. Characterization of local attitudes toward immigration using social media. In *Companion Proceedings of the 2019 World Wide Web Conference*. New York: Association for Computing Machinery, 783–790.

Friese, M., M. Bluemke, and M. Wänke. 2007. Predicting voting behavior with implicit attitude measures. *Experimental Psychology* 54.4: 247–255.

Frijhoff, W. 2015. Multilingualism and the challenge of frenchification in the early modern Dutch Republic. In C. Peersman, G. Rutten, and R. Vosters, eds. *Past, Present and Future of a Language Border. Germanic-Romanic Encounters in the Low Countries*. Berlin: De Gruyter, 115–140.

Frings, C., A. Amendt, and C. Spence. 2011. When seeing doesn't matter: Assessing the after-effects of tactile distractor processing in the blind and the sighted. *Journal of Experimental Psychology: Human Perception and Performance* 37.4: 1174–1181.

Frings, C., K. K. Schneider, and E. Fox. 2015. The negative priming paradigm: An update and implications for selective attention. *Psychonomic Bulletin and Review* 22.6: 1577–1597.

Fuertes, J. N., W. Gottdiener, H. Martin, T. C. Gilbert, and H. Giles. 2012. A meta-analysis of the effects of speakers' accents on interpersonal evaluations. *European Journal of Social Psychology* 42.1: 120–133.

Fuller, J. M. 2018. Ideologies of language, bilingualism, and monolingualism. In A. De Houwer and L. Ortega, eds. *The Cambridge Handbook of Bilingualism*. Cambridge: Cambridge University Press, 119–134.

Gaies, S. J. and J. D. Beebe. 1991. The matched-guise technique for measuring attitudes and their implications of language education: A critical assessment. In E. Sadtono,

ed. *Language Acquisition and the Second/Foreign Language Classroom*. Singapore: SEAMEO Regional Language Centre, 156–178.

Gal, S. 1979. *Language Shift: Social Determinants of Linguistic Change in Bilingual Austria*. New York: Academic Press.

Gal, S. and J. T. Irvine. 2019. *Signs of Difference: Language and Ideology in Social Life*. Cambridge: Cambridge University Press.

Gal, S. and K. Woolard, eds. 2001. *Languages and Publics: The Making of Authority*, Manchester: St. Jerome Publishing.

Gałecki, A. and T. Burzykowski. 2013. *Linear Mixed-Effects Models Using R: A Step-by-Step Approach*. New York: Springer.

Gallois, C. and V. J. Callan. 1981. Personality impressions elicited by accented English speech. *Journal of Cross-Cultural Psychology* 12.3: 347–359.

Gallois, C. and H. Giles. 2015. Communication Accommodation Theory. In K. Tracy, C. Ilie, and T. Sandel, eds. *The International Encyclopedia of Language and Social Interaction*. Hoboken: Wiley, 159–176.

Gardner, R. C. 1982. Language attitudes and language learning. In E. B. Ryan and H. Giles, eds. *Attitudes towards Language Variation: Social and Applied Contexts*. London: Edward Arnold, 132–147.

Gardner, R. C. and W. E. Lambert. 1972. *Attitudes and Motivation in Second-Language Learning*. Rowley: Newbury House.

Gardner, R. C. and P. D. MacIntyre. 1993. On the measurement of affective variables in second language learning. *Language Learning* 43.2: 157–194.

Garrett, P. 2004. Attitude measurements. In U. Ammon, N. Dittmar, K. Mattheier, and P. Trudgill, eds. *Sociolinguistics. An International Handbook of the Science of Language and Society*. Vol. 1. Berlin: De Gruyter, 1251–1260.

Garrett, P. 2010. *Attitudes to Language*. Cambridge: Cambridge University Press.

Garrett, P., N. Coupland, and A. Williams. 2003. *Investigating Language Attitudes: Social Meanings of Dialect, Ethnicity and Performance*. Cardiff: University of Wales Press.

Garrett, P., A. Williams, and B. Evans. 2005. Attitudinal data from New Zealand, Australia, the USA and the UK about each other's Englishes: Recent changes? Or consequences of methodology? *Multilingua* 24.3: 211–235.

Gass, R. H. and J. S. Seiter. 1999. *Persuasion, Social Influence and Compliance Gaining*. Boston: Allyn and Bacon.

Gawronski, B. and J. De Houwer. 2014. Implicit measures in social and personality psychology. In H. T. Reis and C. M. Judd, eds. *Handbook of Research Methods in Social and Personality Psychology*. 2nd ed. Cambridge: Cambridge University Press, 283–310.

Gawronski, B. and A. Hahn. 2019. Implicit measures: Procedures, use, and interpretation. In H. Blanton, J. LaCroix, and G. Webster, eds. *Measurement in Social Psychology*. New York: Taylor and Francis, 29–55.

Gawronski, B., R. Deutsch, and R. Banse. 2011. Response interference tasks as indirect measures of automatic associations. In K. C. Klauer, A. Voss, and C. Stahl, eds. *Cognitive Methods in Social Psychology*. New York: Guilford, 78–123.

Gawronski, B., K. R. Peters, and E. P. LeBel. 2008. What makes mental associations personal or extra-personal? Conceptual issues in the methodological debate about implicit attitude measures. *Social and Personality Psychology Compass* 2.2: 1002–1023.

Gee, J. P. 1992. *The Social Mind: Language, Ideology and Social Practice*. New York: Bergin and Garvey.

Gee, J. P. 2011. *An Introduction to Discourse Analysis: Theory and Method*. 3rd ed. London: Routledge.

Geer, J. G. 1988. What do open-ended questions measure? *Public Opinion Quarterly* 52.3: 365–367.

Geer, J. G. 1991. Do open-ended questions measure 'salient' issues? *Public Opinion Quarterly* 55.3: 360–370.

Geeraerts, D. 2008. Prototypes, stereotypes and semantic norms. In G. Kristiansen and R. Dirven, ed. *Cognitive Sociolinguistics: Language Variation, Cultural Models, Social Systems*. Berlin: Mouton de Gruyter, 21–44.

Geertz, C. 1973. *The Interpretation of Cultures: Selected Essays*. New York: Basic Books.

Gelman, S. A. 2003. *The Essential Child: Origins of Essentialism in Everyday Thought*. Oxford: Oxford University Press.

Generalitat de Catalunya, University of Perpignan and Conseil Départemental des Pyrénées-Orientales. 2015. *Coneixements i usos lingüístics a la Catalunya del Nord. Principals resultats de l'Enquesta d'usos lingüístics a la Catalunya del Nord (EULCN) 2015*. http://llengua.gencat.cat/web/.content/documents/dadesestudis/altres/arxius/EULCN_2015_principals_resultats.pdf.

Genesee, F. and R. Y. Bourhis. 1988. Evaluative reactions to language choice strategies: The role of sociocultural factors. *Language and Communication* 8.3–4: 229–250.

Genesee, F. and N. E. Holobow. 1989. Change and stability in intergroup perceptions. *Journal of Language and Social Psychology* 8.1: 17–38.

Georgakopoulou, A. and T. Spilioti, eds. 2015. *The Routledge Handbook of Language and Digital Communication*. London: Routledge.

Georgiou, A. and P. Karatsareas. Forthcoming. Teaching Greek in complementary schools in the UK: Policies and practices in the Greek Cypriot diaspora. In J. Ćalić and E. Tarsoly, eds. *Fashioning Language: The Politics of Teaching and Learning Languages*. London: University College London Press.

Gerlach, F. W. 1758. *Kurzgefasste Deutsche Sprachlehre, welche die allgemeinen Gründe, samt einem Verzeichnisse der Stammwörter, und vieler abstammenden und zusammengesetzten Wörter der deutschen Sprache in sich enthält; und aus Hochachtung der Muttersprache und der Wissenschaften herausgegeben worden [. . .]*. Vienna: Eva Maria Schilgin.

Gibbons, J. P. 1983. Attitudes towards languages and code-mixing in Hong Kong. *Journal of Multilingual and Multicultural Development* 4.2–3: 129–147.

Giddings, L. S. 2006. Mixed-methods research, positivism dressed in drag! *Journal of Research in Nursing* 11.3: 195–203.

Gijssels, T., L. Staum Casasanto, K. Jasmin, P. Hagoort, and D. Casasanto. 2016. Speech accommodation without priming: The case of pitch. *Discourse Processes* 53.4: 233–251.

Giles, H. 1970. Evaluative reactions to accents. *Educational Review* 22.3: 211–227.

Giles, H. 1973. Accent mobility: A model and some data. *Anthropological Linguistics* 15.2: 87–105.

Giles, H. 1990. Social meanings of Welsh English. In N. Coupland, ed. *English in Wales: Diversity, Conflict, and Change*. Clevedon: Multilingual Matters, 258–282.

Giles, H., ed. 2016. *Communication Accommodation Theory: Negotiating Personal Relationships and Social Identities across Contexts*. Cambridge: Cambridge University Press.

Giles, H. and A. C. Billings. 2008. Assessing language attitudes: Speaker evaluation studies. In A. Davies and C. Elder, eds. *The Handbook of Applied Linguistics*. Malden: Blackwell, 187–209.

Giles, H. and R. Y. Bourhis. 1973. Dialect perception revisited. *Quarterly Journal of Speech* 59.3: 337–342.

Giles, H. and R. Y. Bourhis. 1976. Voice and racial categorization in Britain. *Communication Monographs* 43.2: 108–114.

Giles, H. and N. Coupland. 1991. *Language: Contexts and Consequences*. Milton Keynes: Open University Press.

Giles, H. and P. Johnson. 1987. Ethnolinguistic identity theory: A social psychological approach to language maintenance. *International Journal of the Sociology of Language* 68: 69–99.

Giles, H. and M. L. Marlow. 2011. Theorizing language attitudes: Existing frameworks, an integrative model, and new directions. *Annals of the International Communication Association* 35.1: 161–197.

Giles, H. and T. Ogay. 2007. Communication Accommodation Theory. In B. B. Whaley and W. Samter, eds. *Explaining Communication: Contemporary Theories and Exemplars*. Mahwah: Lawrence Erlbaum, 293–310.

Giles, H. and P. F. Powesland. 1975. *Speech Style and Social Evaluation*. London: Academic Press.

Giles, H. and E. B. Ryan. 1982. Prolegomena for developing a social psychological theory of language attitudes. In E. B. Ryan and H. Giles, eds. *Attitudes Towards Language Variation: Social and Applied Contexts*. London: Edward Arnold, 208–223.

Giles, H. and C. Sassoon. 1983. The effect of speakers' accent, social class background and message style on British listeners' social judgements. *Language and Communication* 3.3: 305–313.

Giles, H. and B. Watson, eds. 2013. *The Social Meanings of Language, Dialect and Accent: International Perspectives on Speech Styles*. New York: Peter Lang.

Giles, H., R. Y. Bourhis, and A. Davies. 1979. Prestige speech styles: The imposed norm and inherent value hypotheses. In W. C. McCormack and S. A. Wurm, eds. *Language and Society: Anthropological Issues*. The Hague: Mouton, 589–596.

Giles, H., R. Y. Bourhis, and D. M. Taylor. 1977. Towards a theory of language in ethnic group relations. In H. Giles, ed. *Language, Ethnicity and Intergroup Relations*. London: Academic Press, 307–348.

Giles, H., P. Wilson, and A. Conway. 1981. Accent and lexical diversity as determinants of impression formation and perceived employment suitability. *Language Sciences* 3.1: 91–103.

Giles, H., R. Y. Bourhis, P. Trudgill, and A. Lewis. 1974. The imposed norm hypothesis: A validation. *Quarterly Journal of Speech* 60.4: 405–410.

Giles, H., A. Williams, D. M. Mackie, and F. Rosselli. 1995. Reactions to Anglo- and Hispanic-American-accented speakers: Affect, identity, persuasion, and the English-only controversy. *Language and Communication* 15.2: 107–120.

Giles, H., N. Coupland, K. Henwood, J. Harriman, and J. Coupland. 1990. The social meaning of RP: An intergenerational perspective. In S. Ramsaran, ed. *Studies in the*

Pronunciation of English: A Commemorative Volume in Honour of A. C. Gimson. London: Routledge, 191–211.

Gillham, B. 2008. *Developing a Questionnaire*. 2nd ed. London: Continuum.

Ginzburg, J. 2012. *The Interactive Stance: Meaning for Conversation*. Oxford: Oxford University Press.

Girard, F., C. Floccia, and J. Goslin. 2008. Perception and awareness of accents in young children. *British Journal of Developmental Psychology* 26.3: 409–433.

Glaser, B. G. and A. L. Strauss. 1967. *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Hawthorne: Aldine de Gruyter.

Glaser, J. and M. R. Banaji. 1999. When fair is foul and foul is fair: Reverse priming in automatic evaluation. *Journal of Personality and Social Psychology* 77.4: 669–687.

Glashouwer, K. A., F. T. Y. Smulders, P. J. De Jong, A. Roefs, and R. W. H. J. Wiers. 2013. Measuring automatic associations: Validation of algorithms for the Implicit Association Test (IAT) in a laboratory setting. *Journal of Behavior Therapy and Experimental Psychiatry* 44.1: 105–113.

Gluszek, A. and J. F. Dovidio. 2010. The way they speak: A social psychological perspective on the stigma of nonnative accents in communication. *Personality and Social Psychology Review* 14.2: 214–237.

Goatley-Soan, S. and J. R. Baldwin. 2018. Words apart: A study of attitudes toward varieties of South African English accents in a United States employment scenario. *Journal of Language and Social Psychology* 37.6: 692–705.

Godden, D. R. and A. D. Baddeley. 1975. Context-dependent memory in two natural environments: On land and underwater. *British Journal of Psychology* 66.3: 325–331.

Goffman, E. 1974. *Frame Analysis*. Cambridge: Harvard University Press.

Goldinger, S. D., P. A. Luce, D. B. Pisoni, and J. K. Marcario. 1992. Form-based priming in spoken word recognition: The roles of competition and bias. *Journal of Experimental Psychology: Learning, Memory, and Cognition* 18.6: 1211–1238.

Gooskens, C., N. H. Hilton, and A. Schüppert. 2016. Is Swedish more beautiful than Danish? A matched-guise investigation. *Nooit Het Noorden Kwijt*, 165–182.

Gosling, S. D. and W. Mason. 2015. Internet research in psychology. *Annual Review of Psychology* 66: 877–902.

Gottsched, J. C. 1762. *Vollständigere und Neuerläuterte Deutsche Sprachkunst. Nach den Mustern der besten Schriftsteller des vorigen und itzigen Jahrhunderts abgefasset, und bei dieser fünften Auflage merklich verbessert*. Leipzig: Bernhard Christoph Breitkopf und Sohn.

Gould, P. and R. White. 1986. *Mental Maps*. 2nd ed. Boston: Allen and Unwin.

Green, E. M. 2014. The nature of signs: Nepal's deaf society, local sign and the production of communicative sociality. Unpublished PhD dissertation, University of California, Berkeley.

Greenbaum, T. L. 1998. *The Handbook for Focus Group Research*. London: SAGE.

Greene, J. C. 2008. Is mixed methods social inquiry a distinctive methodology? *Journal of Mixed Methods Research* 2.1: 7–22.

Greenwald, A. G. and M. R. Banaji. 1995. Implicit social cognition: Attitudes, self-esteem, and stereotypes. *Psychological Review* 102.1: 4–27.

Greenwald, A. G, C. Draine, and R. L. Abrams. 1996. Three cognitive markers of unconscious semantic activation. *Science* 273.5282: 1699–1702.

Greenwald, A. G., D. E. McGhee, and J. L. K. Schwartz. 1998. Measuring individual differences in implicit cognition: The Implicit Association Test. *Journal of Personality and Social Psychology* 74.6: 1464–1480.

Greenwald, A. G., B. A. Nosek, and M. R. Banaji. 2003. Understanding and using the Implicit Association Test: I. An improved scoring algorithm. *Attitudes and Social Cognition* 85.2: 197–216.

Gregg, A. P. and J. Klymowsky. 2013. The Implicit Association Test in market research: Potentials and pitfalls. *Psychology and Marketing* 30.7: 588–601.

Grieve, J., A. Nini, and D. Guo. 2018 Mapping lexical innovation on American social media. *Journal of English Linguistics* 46.4: 293–319.

Grieve, J., C. Montgomery, A. Nini, A. Murakami, and D. Guo. 2019. Mapping lexical dialect variation in British English using Twitter. *Frontiers in Artificial Intelligence* 2: 11.

Griffin, E. A. 2009. *A First Look at Communication Theory*. Boston: McGraw-Hill.

Griffin, G. 2013. Discourse analysis. In G. Griffin, ed. *Research Methods for English Studies*. Edinburgh: Edinburgh University Press, 93–112.

Grillo, R. D. 1989. *Dominant Languages: Languages and Hierarchy in Britain and France*. New York: Cambridge University Press.

Grondelaers, S. 2013. Attitude measurements in the Low Countries. In F. L. M. P. Hinskens and J. Taeldeman, eds. *Language and Space. An International Handbook of Linguistic Variation: Dutch*. Berlin: de Gruyter, 568–602.

Grondelaers, S. and T. Kristiansen. 2013. On the need to access deep evaluations when searching for the motor of standard language change. In T. Kristiansen and S. Grondelaers, eds. *Language (De)standardisations in Late Modern Europe: Experimental Studies*. Oslo: Novus, 9–52.

Grondelaers, S., R. van Hout, and M. Steegs. 2010. Evaluating regional accent variation in Standard Dutch. *Journal of Language and Social Psychology* 29.1: 101–116.

Grondelaers, S., D. Speelman, C. Lybaert, and P. van Gent. 2020. Getting a (big) data-based grip on ideological change: Evidence from Belgian Dutch. *Journal of Linguistic Geography* 8.1: 49–65.

Grosjean, F. 1982. *Life with Two Languages: An Introduction to Bilingualism*. London: Harvard University Press.

Gross, M. 1999. *Psychology: The Science of Mind and Behaviour*. 3rd ed. London: Hodder and Stoughton.

Gubrium, J. F., J. A. Holstein, A. B. Marvasti, and K. D. McKinney. 2012. *The SAGE Handbook of Interview Research: The Complexity of the Craft*. Thousand Oaks: SAGE.

Gumperz, J. J. 2015. Interactional sociolinguistics. In D. Tannen, H. E. Hamilton, and D. Schiffrin, eds. *The Handbook of Discourse Analysis*. London: Wiley-Blackwell, 309–323.

Guzzardo Tamargo, R. E., V. Loureiro-Rodríguez, E. F. Acar, and J. Vélez Avilés. 2019. Attitudes in progress: Puerto Rican youth's opinions on monolingual and code-switched language varieties. *Journal of Multilingual and Multicultural Development* 40.4: 304–321.

Haarmann, H. 1990. Language planning in the light of a general theory of language: A methodological framework. *International Journal of the Sociology of Language* 86: 103–126.

Haddock, G. and M. P. Zanna. 1998. On the use of open-ended measures to assess attitudinal components. *British Journal of Social Psychology* 37.2: 129–149.

Hadley, L. V., N. K. Fisher, and M. J. Pickering. 2020. Listeners are better at predicting speakers similar to themselves. *Acta Psychologica* 208: 103094.

Harwood, J., H. Giles, and R. Y. Bourhis. 1994. The genesis of vitality theory: Historical patterns and discoursal dimensions. *International Journal of the Sociology of Language* 108: 167–206.

Hashimoto, D. 2019. Sociolinguistic effects on loanword phonology: Topic in speech and cultural image. *Journal for the Association for Laboratory Phonology*: 10.1: 11.

Haugen, E. 1966. Dialect, language, nation. *American Anthropologist* 68.4: 922–935.

Haugen, R. 2004. Språk og språkhaldningar hjå ungdomar i Sogndal. Unpublished PhD dissertation, University of Bergen.

Havinga, A. D. 2018. *Invisibilising Austrian German: On the Effect of Linguistic Prescriptions and Educational Reforms on Writing Practices in 18th-Century Austria*. Berlin: de Gruyter.

Havinga, A. D. 2019. The role of eighteenth-century newspapers in the disappearance of Upper German variants in Austria. *Journal of Historical Sociolinguistics* 5.1: 20170015.

Hawkey, J. 2018. *Language Attitudes and Minority Rights: The Case of Catalan in France*. Cham: Palgrave Macmillan.

Hawkey, J. 2020. Language attitudes as predictors of morphosyntactic variation: Evidence from Catalan speakers in Southern France. *Journal of Sociolinguistics* 24.1: 16–34.

Hawkey, J. and N. Langer. 2016. Language policy in the long nineteenth century: Catalonia and Schleswig. In C. Russi, ed. *Current Trends in Historical Sociolinguistics*. Berlin: De Gruyter, 81–107.

Hawkey, J. and D. Mooney. 2021. The ideological construction of legitimacy for pluricentric standards: Occitan and Catalan in France. *Journal of Multilingual and Multicultural Development*. 42.9: 854–868.

Hawksey, M. 2020. *Hawksey Tag* https://tags.hawksey.info/get-tags/.

Hay, J. and K. Drager. 2010. Stuffed toys and speech perception. *Linguistics* 48.4: 865–892.

Hay, J., A. Nolan, and K. Drager. 2006. From fush to feesh: Exemplar priming in speech perception. *The Linguistic Review* 23.3: 351–379.

Hebdige, D. 1984. *Subculture: The Meaning of Style*. New York: Methuen.

Heggen, K. and M. Guillemin. 2012. Protecting participants' confidentiality using a situated research ethics approach. In J. F. Gubrium, J. A. Holstein, A. B. Marvasti, and K. D. McKinney, eds. *The SAGE Handbook of Interview Research: The Complexity of the Craft*. Thousand Oaks: SAGE, 465–476.

Heller, M. 2011. *Paths to Post-Nationalism: A Critical Ethnography of Language and Identity*. New York: Oxford University Press.

Heller, M., S. Pietikäinen, and J. Pujolar. 2018. *Critical Sociolinguistic Methods: Studying Language Issues that Matter*. London: Routledge.

Hendriks, B., F. van Meurs, and A.-K. Reimer. 2018. The evaluation of lecturers' nonnative-accented English: Dutch and German students' evaluations of different degrees of Dutch-accented and German-accented English of lecturers in higher education. *Journal of English for Academic Purposes* 34: 28–45.

Hennink, M. 2017. Cross-cultural focus group discussions. In R. S. Barbour and D. L. Morgan, eds. *A New Era in Focus Group Research*. London: Palgrave Macmillan, 59–82.

Henrich, J., S. J. Heine, and A. Norenzayan. 2010. Most people are not WEIRD. *Nature* 466: 29.

Heritage, J. 2004. Conversation analysis and institutional talk: Analysing data. In D. Silverman, ed. *Qualitative Research: Theory, Method and Practice*. 2nd ed. London: SAGE. 222–245.

Hernández-Campoy, J. M. and J. C. Conde-Silvestre, eds. 2012. *The Handbook of Historical Sociolinguistics*. Chichester: Wiley Blackwell.

Herring, S. C. 2001. Computer-mediated discourse. In D. Schiffrin, D. Tannen, and H. Hamilton, eds. *The Handbook of Discourse Analysis*. Oxford: Blackwell Publishers. 612–634.

Herring, S. C. 2003. Media and language change: Introduction. *Journal of Historical Pragmatics* 4.1: 1–17.

Hesson, A. M. and H. Pichler. 2018. Breaking down barriers in pediatric mental health consultations: Understanding patients' use of I DON'T KNOW. *Health Communication* 33.7: 867–876.

van Heugten, M., D. R. Krieger, and E. K. Johnson. 2015. The developmental trajectory of toddlers' comprehension of unfamiliar regional accents. *Language Learning and Development* 11.1: 41–65.

Hewstone, M., M. Rubin, and H. Willis. 2002. Intergroup bias. *Annual Review of Psychology* 53: 575–604.

Hickey, R. 2010. Attitudes and concerns in eighteenth-century English. In R. Hickey, ed. *Eighteenth-Century English: Ideology and Change*. Cambridge: Cambridge University Press, 1–20.

Hilgard, E. R. 1980. The trilogy of mind: Cognition, affection, and conation. *Journal of the History of the Behavioral Sciences* 16.2: 107–117.

Hill, J. C. 2012. *Language Attitudes in the American Deaf Community*. Washington: Gallaudet University Press.

Hill, J. C. 2015a. Language attitudes in deaf communities. In A. C. Schembri and C. Lucas, eds. *Sociolinguistics and Deaf Communities*. Cambridge: Cambridge University Press, 146–174.

Hill, J. C. 2015b. Data collection in sociolinguistics. In E. Orfanidou, B. Woll, and G. Morgan, eds. *Research Methods in Sign Language Studies: A Practical Guide*. Oxford: Wiley Blackwell, 193–205.

Hilton, N. H. and C. Gooskens. 2013. Language policies and attitudes towards Frisian in the Netherlands. In C. Gooskens and R. van Bezooijen, eds. *Phonetics in Europe: Perception and Production*. Frankfurt: Peter Lang, 139–157.

Hilton, N. H., L. Rosseel, E. L. Smidt, and M. Coler. 2016. Using the IAT to understand the relationship between variant usage patterns and social meaning. Presented at Sociolinguistics Symposium 21, Murcia, 15–18 June.

Hirschfeld, L. A. 1995. The inheritability of identity: Children's understanding of the cultural biology of race. *Child Development* 66.5: 1418–1437.

Hirschfeld, L. A. 1996. *Race in the Making: Cognition, Culture, and the Child's Construction of Human Kinds*. Cambridge: The MIT Press.

Hirschfeld, L. A. and S. A. Gelman. 1997. What young children think about the relationship between language variation and social difference. *Cognitive Development* 12.2: 213–238.

Hoare, R. 2001. An integrative approach to language attitudes and identity in Brittany. *Journal of Sociolinguistics* 5.1: 73–84.

Hochgesang, J. 2019. 'Tyranny of Glossing' revisited: Reconsidering representational practices of signed languages via best practices of data citation. Presented at Doing Reproducible and Rigorous Science with Deaf Children, Deaf Communities, and Sign Languages: Challenges and Opportunities, Berlin, 23 September.

Hogg, M. A. 1995. Social identity theory. In A. S. R. Manstead and M. Hewstone, eds. *The Blackwell Encyclopedia of Social Psychology*. Oxford: Blackwell, 555–560.

Hogg, M. A., N. Joyce, and D. Abrams. 1984. Diglossia in Switzerland? A social identity analysis of speaker evaluations. *Journal of Language and Social Psychology* 3.3: 185–196.

Holland, R. W., M. Hendriks, and H. Aarts. 2005. Smells like clean spirit. *Psychological Science* 16.9: 689–693.

Holmes, J. 2007. Humour and the construction of Maori leadership at work. *Leadership* 3.1: 5–27.

Holmes, P., R. Fay, J. Andrews, and M. Attia. 2013. Researching multilingually: New theoretical and methodological directions. *International Journal of Applied Linguistics* 23.3: 285–299.

Holmes, P., R. Fay, J. Andrews, and M. Attia. 2016. How to research multilingually: Possibilities and complexities. In Z. Hua, ed. *Research Methods in Intercultural Communication: A Practical Guide*. Chichester: Wiley Blackwell, 88–102.

Horner, K. and J. Bellamy. 2016. Beyond the micro–macro interface in language and identity research. In S. Preece, ed. *The Routledge Handbook of Language and Identity*. London: Routledge, 320–334.

Hornsby, M. 2015. *Revitalizing Minority Languages: New Speakers of Breton, Yiddish and Lemko*. Basingstoke: Palgrave Macmillan.

Hou, L. Y.-S. 2017. Negotiating language practices and language ideologies in fieldwork: A reflexive meta-documentation. In A. Kusters, M. De Meulder, and D. O'Brien, eds. *Innovations in Deaf Studies: The Role of Deaf Scholars*. Oxford: Oxford University Press, 339–359.

Hou, L. Y.-S. and A. Kusters. 2020. Signed languages. In K. Tusting, ed. *The Routledge Handbook of Linguistic Ethnography*. London: Routledge, 340–355.

Houben, K. and R. W. Wiers. 2006. Assessing implicit alcohol associations with the Implicit Association Test: Fact or artifact? *Addictive Behaviors* 31.8: 1346–1362.

Howard, L. H., C. Carrazza, and A. L. Woodward. 2014. Neighborhood linguistic diversity predicts infants' social learning. *Cognition* 133.2: 474–479.

Hsieh, H.-F. and S. E. Shannon. 2005. Three approaches to qualitative content analysis. *Qualitative Health Research* 15.9: 1277–1288.

Hundt, M. 1992. *Einstellungen gegenüber dialektal gefärbter Standardsprache*. Stuttgart: Franz Steiner Verlag.

Hundt, M. 2019. 'My language, my identity': Negotiating language use and attitudes in the New Zealand Fiji Indian diaspora. *Asian Englishes* 2.1: 2–21.

Hundt, M., L. Zipp, and A. Huber. 2015. Attitudes in Fiji towards varieties of English. *World Englishes* 34.4: 688–707.

Hüning, M., U. Vogl, and O. Moliner, eds. 2012. *Standard Languages and Multilingualism in European History*. Amsterdam: John Benjamins.

Hutchby, I. and R. Wooffitt. 1998. *Conversation Analysis: Principles, Practices and Applications*. Cambridge: Polity Press.

Huygens, I. and G. M. Vaughan. 1983. Language attitudes, ethnicity and social class in New Zealand. *Journal of Multilingual and Multicultural Development* 4.2–3: 207–223.

Hymes, D. 1974. *Foundations in Sociolinguistics: An Ethnographic Approach*. Philadelphia: University of Pennsylvania Press.

Hyrksted, I. and P. Kalaja. 1998. Attitudes towards English and its functions in Finland: A discourse-analytic study. *World Englishes* 17.3: 345–357.

Ianos, M.-A., Á. Huguet, J. Janés, and C. Lapresta. 2017. Can language attitudes be improved? A longitudinal study of immigrant students in Catalonia (Spain). *International Journal of Bilingual Education and Bilingualism* 20.3: 331–345.

IDEA. 2021. *International Dialects of English Archive*. https://www.dialectsarchive.com.

IDESCAT (Institut d'Estadística de Catalunya). 2013. *Població de 15 anys i més segons llengua inicial, d'identificació i habitual, 2013*. https://www.idescat.cat/indicadors/?id=anuals&n=10364&t=201300.

Iglesias-Álvarez, A. and F. Ramallo. 2003. Language as a diacritical in terms of cultural and resistance identities in Galicia. *Estudios de Sociolingüística* 4.1: 255–287.

Ihalainen, O. 1994. The dialects of England since 1776. In R. Burchfield, ed. *English in Britain and Overseas: Origins and Development*. Cambridge: Cambridge University Press, 197–274.

Ihemere, K. U. 2006. An integrated approach to the study of language attitudes and change in Nigeria: The case of the Ikwerre of Port Harcourt City. In O. F. Arasayin and M. A. Pemberton, eds. *Selected Proceedings of the 36th Annual Conference on African Linguistics*. Somerville: Cascadilla Proceedings Project, 194–207. http://www.lingref.com/cpp/acal/36/paper1424.pdf.

Imamura, M., Y. B. Zhang, and J. Harwood. 2011. Japanese sojourners' attitudes toward Americans: Exploring the influences of communication accommodation, linguistic competence, and relational solidarity in intergroup contact. *Journal of Asian Pacific Communication* 21.1: 115–132.

Imuta, K. and J. L. Spence. 2020. Developments in the social meaning underlying accent- and dialect-based social preferences. *Child Development Perspectives* 14.3: 135–141.

Incera, S. and C. T. McLennan. 2016. Mouse tracking reveals that bilinguals behave like experts. *Bilingualism: Language and Cognition* 19.3: 610–620.

[INSEE] Institut national de la statistique et des études économiques. 2015. *Recensement de la population. Populations légales en vigueur à compter du 1er janvier 2016. Pyrénées-Orientales*. Paris: Ministère de l'Économie et des Finances.

Instructie voor den Agent van Nationale Opvoeding. 1798. The Hague: S.n.

[ITU] International Telecommunication Union. 2020. *Statistics*. https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx.

Ioannidou, E., P. Karatsareas, V. Lytra, and S. Tsiplakou. 2020. Why and how to integrate non-standard linguistic varieties into education: Cypriot Greek in Cyprus and the UK. *Languages, Society and Policy*. 10.17863/CAM.54137.

Jackson, K. M. and W. M. K. Trochim. 2002. Concept mapping as an alternative approach for the analysis of open-ended survey responses. *Organizational Research Methods* 5.4: 307–336.

Jaffe, A., ed. 2000. *Non-standard Orthography*. Special issue of *Journal of Sociolinguistics* 4.4.

Jaffe, A. 2007. Introduction: The sociolinguistics of stance. In A. Jaffe, ed. *Stance: Sociolinguistic Perspectives*. Oxford: Oxford University Press, 3–28.

Janda, R. D. and B. D. Joseph. 2003. On language, change, and language change – or, of history, linguistics, and historical linguistics. In B. D. Joseph and R. D. Janda, eds. *The Handbook of Historical Linguistics*. Oxford: Blackwell, 1–180.

Jaswal, V. K. and L. A. Neely. 2006. Adults don't always know best: Preschoolers use past reliability over age when learning new words. *Psychological Science* 17.9: 757–758.

Jeon, L. 2013. Drawing boundaries and revealing language attitudes: Mapping perceptions of dialects in Korea. Unpublished MA Dissertation, University of North Texas.

Johnson, D. E. 2008. *Rbrul*. http://www.danielezrajohnson.com/rbrul.html.

Johnson, D. E. 2009. Getting off the GoldVarb standard: Introducing Rbrul for mixed-effects variable rule analysis. *Language and Linguistics Compass* 3.1: 359–383.

Johnson, R. A. and D. W. Wichern. 2008. *Applied Multivariate Statistical Analysis*. 6th ed. Upper Saddle River: Pearson.

Johnson, R. B. and A. J. Onwuegbuzie. 2004. Mixed methods research: A research paradigm whose time has come. *Educational Researcher* 33.7: 14–26.

Johnson, R. B., A. J. Onwuegbuzie, and L. A. Turner. 2007. Toward a definition of mixed methods research. *Journal of Mixed Methods Research* 1.2: 112–133.

Johnson, S. 2001. Who's misunderstanding whom? (Socio)linguistics, public debate and the media. *Journal of Sociolinguistics* 5.4: 591–610.

Johnson, S. and A. Ensslin, eds. 2007. *Language in the Media: Representations, Identities, Ideologies*. London: Continuum.

Johnson, S. and T. M. Milani, eds. 2010. *Language Ideologies and Media Discourse: Texts, Practices, Policies*. London: Continuum.

Johnstone, B. 2007. Linking identity and dialect through stancetaking. In R. Englebretson, ed. *Stancetaking in Discourse: Subjectivity, Evaluation, Interaction*. Amsterdam: John Benjamins, 49–68.

Johnstone, B. and S. F. Kiesling. 2008. Indexicality and experience: Exploring the meaning of /aw/-monophthongization in Pittsburgh. *Journal of Sociolinguistics* 12.1: 5–33.

Jones, T. 2015. Toward a description of African American Vernacular English dialect regions using 'Black Twitter'. *American Speech* 90.4: 403–440.

Jones, Z., Q. Yan, L. Wagner, and C. G. Clopper. 2017. The development of dialect classification across the lifespan. *Journal of Phonetics* 60: 20–37.

Jørgensen, M. and L. Phillips. 2002. *Discourse Analysis as Theory and Method*. London: SAGE.

Joseph, J. E. 1987. *Eloquence and Power: The Rise of Language Standards and Standard Languages*. London: Pinter.

Joseph, J. E., G. Rutten, and R. Vosters. 2020. Dialect, language, nation: 50 years on. *Language Policy* 19: 161–182.

Jusczyk, P. W. and R. N. Aslin. 1995. Infants' detection of the sound patterns of words in fluent speech. *Cognitive Psychology* 29.1: 1–23.

Kalaja, P. and A. Pitkänen-Huhta. 2018. ALR special issue: Visual methods in Applied Language Studies. *Applied Linguistics Review* 9.2–3: 157–176.

Kannapell, B. 1985. Language choice reflects identity choice: A sociolinguistic study of deaf college students. Unpublished Dissertation, Georgetown University.

Kannapell, B. 1989. An examination of deaf college students' attitudes toward ASL and English. In C. Lucas, ed. *The Sociolinguistics of the Deaf Community*. San Diego: Academic Press, 191–210.

Karatsareas, P. 2018. Attitudes towards Cypriot Greek and Standard Modern Greek in London's Greek Cypriot community. *International Journal of Bilingualism* 22.4: 412–428.

Karatsareas, P. 2019. Cypriot Greek as a heritage and community language in London: (Socio)linguistic aspects of a non-standardised variety in a diasporic context. In G. Karla, I. Manolessou, and N. Pantelidis, eds. *Λέξεις: Τιμητικός Τόμος για την Χριστίνα Μπασέα-Μπεζαντάκου [Words: Festschrift for Christina Bassea-Bezantakou]*. Athens: Kardamitsa, 143–167.

Karatsareas, P. 2021. From village talk to slang: The re-enregisterment of a non-standardised variety in an urban diaspora. *Journal of Multilingual and Multicultural Development*. 42.9: 827–839.

Karpinski, A. and R. B. Steinman. 2006. The Single Category Implicit Association Test as a measure of implicit social cognition. *Journal of Personality and Social Psychology* 91.1: 16–32.

Kearney, M. W. 2019. rtweet: Collecting and analyzing Twitter data. *Journal of Open Source Software* 4.42: 1829. https://docs.ropensci.org/rtweet/.

Kelle U. 1997. Theory building in qualitative research and computer programmes for the management of textual data. *Sociological Research Online* 2.2. http://www.socresonline.org.uk/2/2/1.html.

Kemler Nelson, D. G., P. W. Jusczyk, D. R. Mandel, J. Myers, A. Turk, and L. Gerken. 1995. The head-turn preference procedure for testing auditory perception. *Infant Behavior and Development* 18.1: 111–116.

Kerkhoff, A., R. van Hout, and T. Vallen. 1988. Attitudes of primary school children and second language proficiency. In R. van Hout and U Knops, eds. *Language Attitudes in the Dutch Language Area*. Dordrecht: De Gruyter Mouton, 121–142.

Khoros. 2020. *The 2020 social media demographics guide*. https://khoros.com/resources/social-media-demographics-guide.

Kim, S. K. and M. Sumner. 2017. Beyond lexical meaning: The effect of emotional prosody on spoken word recognition. *The Journal of the Acoustical Society of America* 142.1: EL49.

King, R. and J. Wicks. 2009. 'Aren't we proud of our language?' Authenticity, commodification, and the Nissan Bonavista television commercial. *Journal of English Linguistics* 37.3: 262–283.

Kinzler, K. D. 2020. *How You Say It: Why You Talk the Way You Do – And What It Says About You*. Boston: Houghton Mifflin Harcourt.

Kinzler, K. D. 2021. Language as a social cue. *Annual Review of Psychology* 72: 241–264.

Kinzler, K. D. and J. B. Dautel. 2012. Children's essentialist reasoning about language and race. *Developmental Science* 15.1: 131–138.

Kinzler, K. D. and J. M. DeJesus. 2013a. Children's sociolinguistic evaluations of nice foreigners and mean Americans. *Developmental Psychology* 49.4: 655–664.

Kinzler, K. D. and J. M. DeJesus. 2013b. Northern = smart and Southern = nice: The development of accent attitudes in the United States. *The Quarterly Journal of Experimental Psychology* 66.6: 1146–1158.

Kinzler, K. D., K. H. Corriveau, and P. L. Harris. 2011. Children's selective trust in native-accented speakers. *Developmental Science* 14.1: 106–111.

Kinzler, K. D., E. Dupoux, and E. S. Spelke. 2007. The native language of social cognition. *Proceedings of the National Academy of Sciences* 104.30: 12577–12580.

Kinzler, K. D., E. Dupoux, and E. S. Spelke. 2012b. 'Native' objects and collaborators: Infants' object choices and acts of giving reflect favor for native over foreign speakers. *Journal of Cognition and Development* 13.1: 67–81.

Kinzler, K. D., K. Shutts, and J. Correll. 2010. Priorities in social categories. *European Journal of Social Psychology* 40.4: 581–592.

Kinzler, K. D., K. Shutts, and E. S. Spelke. 2012a. Language-based social preferences among children in South Africa. *Language Learning and Development* 8.3: 215–232.

Kinzler, K. D., K. Shutts, J. DeJesus, and E. S. Spelke. 2009. Accent trumps race in guiding children's social preferences. *Social Cognition* 27.4: 623–634.

Kircher, R. 2012. How pluricentric is the French language? An investigation of attitudes towards Quebec French compared to European French. *Journal of French Language Studies* 22.3: 345–370.

Kircher, R. 2014a. Thirty years after Bill 101: A contemporary perspective on attitudes towards English and French in Montreal. *Canadian Journal of Applied Linguistics* 17.1: 20–50.

Kircher, R. 2014b. Quebec's shift from ethnic to civic national identity: Implications for language attitudes amongst immigrants in Montreal. In D. Evans, ed. *Language and Identity: Discourse in the World*. London: Bloomsbury, 55–80.

Kircher, R. 2016a. Language attitudes among adolescents in Montreal: Potential lessons for language planning in Quebec. *Nottingham French Studies* 55.2: 239–259.

Kircher, R. 2016b. Montreal's multilingual migrants: Social identities and language attitudes after the proposition of the Quebec Charter of Values. In V. Regan, C. Diskin, and J. Martyn, eds. *Language, Identity and Migration: Voices from Transnational Speakers and Communities*. Bern: Peter Lang, 217–247.

Kircher, R. 2016c. The matched-guise technique. In Z. Hua, ed. *Research Methods in Intercultural Communication: A Practical Guide*. Malden: Wiley, 196–211.

Kircher, R. 2022. Intergenerational language transmission in Quebec: Patterns and predictors in the light of provincial language planning. *International Journal of Bilingual Education and Bilingualism* 25.2: 418–435.

Kircher, R. and S. Fox. 2019. Attitudes towards Multicultural London English: Implications for attitude theory and language planning. *Journal of Multilingual and Multicultural Development* 40.10: 847–864.

Kircher, R. and S. Fox. 2021. Multicultural London English and its speakers: A corpus-informed discourse study of standard language ideology and social stereotypes. *Journal of Multilingual and Multicultural Development*. 42.9: 892–910.

Kircher, R., E. Quirk, M. Brouillard, A. Ahooja, S. Ballinger, L. Polka, and K. Byers-Heinlein. 2022. Quebec-based parents' attitudes towards childhood multilingualism: Evaluative dimensions and potential predictors. *Journal of Language and Social Psychology*. 10.1177/0261927X221078853.

Kisch, S. 2012. Demarcating generations of signers in the dynamic sociolinguistic landscape of a shared sign language: The case of the Al-Sayyid Bedouin. In U. Zeshan and C. de Vos, eds. *Sign Languages in Village Communities: Anthropological and Linguistic Insights*. Berlin: Mouton de Gruyer/Ishara Press, 87–126.

Kisilevsky, B. S. and S. M. J. Hains. 2011. Onset and maturation of fetal heart rate response to the mother's voice over late gestation. *Developmental Science* 14.2: 214–223.

Kisilevsky, B. S., S. M. J. Hains, C. A. Brown, C. T. Lee, B. Cowperthwaite, S. S. Stutzman, M. L. Swansburg, K. Lee, X. Xie, H. Huang, H.-H. Ye, K. Zhang, and Z. Wang. 2009. Fetal sensitivity to properties of maternal speech and language. *Infant Behavior and Development* 32.1: 59–71.

Kitamura, C., R. Panneton, and C. T. Best. 2013. The development of language constancy: Attention to native versus nonnative accents. *Child Development* 84.5: 1686–1700.

Kitchin, R. and G. McArdle. 2016. What makes Big Data, Big Data? Exploring the ontological characteristics of 26 datasets. *Big Data and Society*. 10.1177/2053951716631130.

Klauer, K. C., S. Teige-Mocigemba, and A. Spruyt. 2009. Contrast effects in spontaneous evaluations: A psychophysical account. *Journal of Personality and Social Psychology* 96.2: 265–287.

Kleinschmidt, D. F., K. Weatherholtz, and T. F. Jaeger. 2018. Sociolinguistic perception as inference under uncertainty. *Topics in Cognitive Science* 10.4: 818–834.

Koch, P. and W. Oesterreicher. 1985. Sprache der Nähe – Sprache der Distanz. Mündlichkeit und Schriftlichkeit im Spannungsfeld von Sprachtheorie und Sprachgeschichte. In O. Deutschmann and H. Flasche, eds. *Romanistisches Jahrbuch 36*. Berlin: De Gruyter, 15–43.

Koenig, M. A. and V. K. Jaswal. 2011. Characterizing children's expectations about expertise and incompetence: Halo or pitchfork effects? *Child Development* 82.5: 1634–1647.

Kolbe, R. H. and M. S. Burnett. 1991. Content-analysis research: An examination of applications with directives for improving research reliability and objectivity. *Journal of Consumer Research* 18.2: 243–250.

König, K. 2014. *Spracheinstellungen und Identitätskonstruktion. Eine gesprächsanalytische Untersuchung sprachbiographischer Interviews mit Deutsch-Vietnamesen*. Berlin: de Gruyter.

König, K. 2019. Speaking with or without an accent: Language ideologies and the 'problem' of linguistic super-mobility. In K. Horner and J. Dailey-O'Cain, eds. *Multilingualism, (im)mobilities and spaces of belonging*. Cleveland: Multilingual Matters, 141–172.

Kouider, S. and S. Dehaene. 2007. Levels of processing during non-conscious perception: A critical review of visual masking. *Philosophical Transactions of the Royal Society B* 362.1481: 857–875.

Kouider, S. and E. Dupoux. 2005. Subliminal speech priming. *Psychological Science* 16.8: 617–625.

Krausneker, V. 2005. *Viele Blumen schreibt man 'Blümer'. Soziolinguistische Aspekte des bilingualen Wiener Grundschul-Modells mit Österreichischer Gebärdensprache und Deutsch*. Hamburg: Signum.

Krausneker, V. 2015. Ideologies and attitudes toward sign languages: An approximation. *Sign Language Studies* 15.4: 411–431.

Krippendorff, K. 2018. *Content Analysis: An Introduction to Its Methodology*. 4th ed. Thousand Oaks: SAGE.

Kristiansen, G. and R. Dirven, eds. 2008. *Cognitive Sociolinguistics: Language Variation, Cultural Models, Social Systems*. Berlin: Mouton de Gruyter.

Kristiansen, T. 1991. Sproglige normidealer på Næstvedegnen. Kvantitative sproghold-ningsstudier. Unpublished PhD dissertation, University of Copenhagen.

Kristiansen, T. 1997. Language attitudes in a Danish cinema. In N. Coupland and A. Jaworski, eds. *Sociolinguistics: A Reader and Coursebook*. London: Macmillan Press, 291–305.

Kristiansen, T. 1998. The role of standard ideology in the disappearance of the traditional Danish dialects. *Folia Linguistica* XXXII.1–2: 115–129.

Kristiansen, T. 2003. Language attitudes and language politics in Denmark. *International Journal of the Sociology of Language* 159: 57–71.

Kristiansen, T. 2009. The macro-level social meanings of late-modern Danish accents. *Acta Linguistica Hafniensia* 41.1: 167–192.

Kristiansen, T. 2010a. Investigating language in space: Experimental techniques. In P. Auer and J. E. Schmidt, eds. *Language and Space. An International Handbook of Linguistic Variation*. Vol. 1: *Theories and Methods*. Berlin: Walter de Gruyter, 528–549.

Kristiansen, T. 2010b. Conscious and subconscious attitudes towards English influence in the Nordic countries: Evidence for two levels of language ideology. *International Journal of the Sociology of Language* 204: 59–95.

Kristiansen, T. 2011. Attitudes, ideology and awareness. In R. Wodak, B. Johnston, and P. Kerswill, eds. *The SAGE Handbook of Sociolinguistics*. London: SAGE, 265–278.

Kristiansen, T. 2015. The primary relevance of subconsciously offered attitudes: Focusing the language ideological aspect of sociolinguistic change. In A. Prikhodkine and D. R. Preston, eds. *Responses to Language Varieties: Variability, Processes and Outcomes*. Amsterdam: John Benjamins, 87–116.

Kristiansen, T. and H. Giles. 1992. Compliance-gaining as a function of accent: Public requests in varieties of Danish. *International Journal of Applied Linguistics* 2.1: 17–35.

Kristiansen, T. and J. Jørgensen. 2005. Subjective factors in dialect convergence and divergence. In P. Auer, F. Hinskens, and P. Kerswill, eds. *Dialect Change: Convergence and Divergence in European Languages*. Cambridge: Cambridge University Press, 287–302.

Kristiansen, T., P. Garrett, and N. Coupland. 2005. Introducing subjectivities in language. *Acta Linguistica Hafniensia* 37.1: 9–35.

Krogull, A. 2018. *Policy versus Practice. Language Variation and Change in Eighteenth- and Nineteenth-Century Dutch*. Utrecht: LOT.

Krogull, A., G. Rutten, and M. van der Wal. 2017. Relativisation in Dutch diaries, private letters and newspapers (1770–1840). A genre-specific national language? In T. Säily, A. Nurmi, M. Palander-Collin, and A. Auer, eds. *Exploring Future Paths for Historical Sociolinguistics*. Amsterdam: John Benjamins, 157–186.

Kroskrity, P. V. 2018. Language ideologies and language attitudes. *Oxford Bibliographies*. 10.1093/obo/9780199772810-0122.

Kroskrity, P. V. 2000. Regimenting languages: Language ideological perspectives. In P. V. Kroskrity, ed. *Regimes of Language: Ideologies, Polities and Identities*. Oxford: James Curry, 1–34.

Krosnick, J. A. 2018. Improving question design to maximize reliability and validity. In D. L. Vannette and J. A. Krosnick, eds. *The Palgrave Handbook of Survey Research*. Basingstoke: Palgrave Macmillan, 95–101.

Krueger, R. A. 1998. *Developing Questions for focus groups*. Thousand Oaks: SAGE.

Krueger, R. A. and M. A. Casey. 2009. *Focus Groups: A Practical Guide for Applied Research*. 4th ed. Thousand Oaks: SAGE.

Krug, M. and K. Sell. 2013. Designing and conducting interviews and questionnaires. In M. Krug and J. Schlüter, eds. *Research Methods in Language Variation and Change*. Cambridge: Cambridge University Press, 69–98.

Kühne, S. 2019. Collecting and analyzing Twitter data using R. *R-bloggers*. https://www.r-bloggers.com/collecting-and-analyzing-twitter-data-using-r/.

Kuipers-Zandberg, H. and R. Kircher. 2020. The objective and subjective ethnolinguistic vitality of West Frisian: Promotion and perception of a minority language in the Netherlands. *Sustainable Multilingualism* 17: 1–25.

Kusters, A. 2014. Language ideologies in the shared signing community of Adamorobe. *Language in Society* 43.2: 139–158.

Kusters, A. 2015. *Ishaare: Gestures and Signs in Mumbai*. Film produced and directed by Annelies Kusters, edited by VisualBox, 80 minutes. https://vimeo.com/142245339.

Kusters, A. 2018. Researching language ideologies and attitudes about International Sign. https://mobiledeaf.org.uk/researching-language-ideologies-and-attitudes-about-international-sign/.

Kusters, A. 2019. One village, two sign languages: Qualia, intergenerational relationships and the language ideological assemblage in Adamorobe, Ghana. *Linguistic Anthropology* 30.1: 48–67.

Kusters, A. 2020. The tipping point: On the use of signs from American Sign Language in International Sign. *Language and Communication*, 75: 51–68.

Kusters, A. and M. De Meulder. 2019. Language portraits: Investigating embodied multilingual and multimodal repertoires. *Forum: Qualitative Social Research* 20.3: 10.

Kusters, A. and S. Sahasrabudhe. 2018. Language ideologies on the difference between gesture and sign. *Language and Communication* 60: 44–63.

Kusters, A., S. Sahasrabudhe, and A. Gopalakrishnan. 2016. A reflexive report on filmmaking within a linguistic ethnography with deaf and hearing people in Mumbai. *MMG Working Paper*, 16-04.

Kusters, A., E. M. Green, E. Moriarty, and K. Snoddon. 2020a. Sign language ideologies: Practices and politics. In A. Kusters, E. M. Green, E. Moriarty, and K. Snoddon, eds. *Sign Language Ideologies in Practice*. Berlin: Mouton de Gruyter/Ishara Press, 3–22.

Kusters, A., E. M. Green, E. Moriarty, and K. Snoddon, eds. 2020b. *Sign Language Ideologies in Practice*. Berlin: Mouton de Gruyter/Ishara Press.

Kutlu, E. and R. Kircher, R. 2021. A corpus-assisted discourse study of attitudes toward Spanish as a heritage language in Florida. *Languages* 6.1: 38.

Labelle, M. and D. Salée. 2001. Immigrant and minority representations of citizenship in Quebec. In T. A. Aleinikoff and D. Klusmeyer, eds. *Citizenship Today*. Washington: Brookings Institution Press, 279–315.

Labov, W. 1963. The social motivation of a sound change. *Word* 19.3: 273–309.

Labov, W. 1966. *The Social Stratification of English in New York City*. Washington: Center for Applied Linguistics.

Labov, W. 1969. Contraction, deletion and inherent variability of the English copula. *Language* 45.4: 715–762.

Labov, W. 1972a. *Sociolinguistic Patterns*. Oxford: Basil Blackwell.

Labov, W. 1972b. *Language in the Inner City*. Philadelphia: University of Pennsylvania Press.

Labov, W. 1982. Building on empirical foundations. In W. P. Lehmann and Y. Malkiel, eds. *Perspectives on Historical Linguistics*. Amsterdam: John Benjamins, 17–92.

Labov, W. 1986. The social stratification of (r) in New York City department stores. In H. B. Allen and M. D. Linn, eds. *Dialect and Language Variation*. Orlando: Academic Press, 304–329.

Labov, W. 2001. *Principles of Linguistic Change*. Vol. 2. *Social Factors*. Oxford: Blackwell.

Ladd, F. C. 1970. Black youths view their environment. *Environment and Behaviour* 2.2: 74–99.

Ladd, P. 2003. *Understanding Deaf Culture: In Search of Deafhood*. Clevedon: Multilingual Matters.

Ladegaard, H. J. 2000. Language attitudes and sociolinguistic behaviour: Exploring attitude-behaviour relations in language. *Journal of Sociolinguistics* 4.2: 214–233.

Lamarre, P. 2013. Catching 'Montréal on the Move' and challenging the discourse of unilingualism in Québec. *Anthropologica* 55.1: 41–56.

Lambert, W. E. 1967. A social psychology of bilingualism. *Journal of Social Issues* 23.2: 91–109.

Lambert, W. E., M. Anisfeld, and G. Yeni-Komshian. 1965. Evaluation reactions of Jewish and Arab adolescents to dialect and language variations. *Journal of Personality and Social Psychology* 2.1: 84–90.

Lambert, W. E., H. Frankel, and G. R. Tucker. 1966. Judging personality through speech: A French-Canadian example. *Journal of Communication* 16.4: 305–321.

Lambert, W. E., R. C. Hodgson, R. C. Gardner, and S. Fillenbaum. 1960. Evaluational reactions to spoken languages. *Journal of Abnormal and Social Psychology* 60.1: 44–51.

Lameli, A., C. Purschke, and R. Kehrein. 2008. Stimulus und Kognition: Zur Aktivierung mentaler Raumbilder. *Linguistik Online* 35.3/08: 55–86.

Lane, K. A., M. R. Banaji, B. A. Nosek, and A. G. Greenwald. 2007. Understanding and using the Implicit Association Test: IV. What we know (so far) about the method. In B. Wittenbrink and N. Schwarz, eds. *Implicit Measures of Attitudes*. New York: Guilford, 59–102.

Laney, D. 2001. 3D data management: Controlling data volume, velocity and variety. *Meta Group, Application Delivery Strategies* 949. http://blogs.gartner.com/doug-

laney/files/2012/01/ad949-3D-Data-Management-Controlling-Data-Volume-Velocity-and-Variety.pdf.

Lang, P. J., M. M. Bradley, and B. N. Cuthbert. 2008. *International Affective Picture System (IAPS): Affective Ratings of Pictures and Instruction Manual. Technical Report A-8*. Gainesville: University of Florida.

Langer, N. and A. Nesse. 2012. Linguistic purism. In J. M. Hernández-Campoy and J. C. Conde-Silvestre, eds. *The Handbook of Historical Sociolinguistics*. Chichester: Wiley Blackwell, 607–625.

Langer, N. and A. D. Havinga. 2015. Invisible languages in historical sociolinguistics: A conceptual outline, with examples from the German-Danish Borderlands. In A. D. Havinga and N. Langer, eds. *Invisible Languages in the Nineteenth Century*. Oxford: Peter Lang, 1–34.

Lapadat, J. C. 2000. Problematizing transcription: purpose, paradigm and quality. *International Journal of Social Research Methodology* 3.3: 203–219.

Lavine, H., C. J. Thomsen, M. P. Zanna, and E. Borgida. 1998. On the primacy of affect in the determination of attitudes and behavior: The moderating role of affective-cognitive ambivalence. *Journal of Experimental Social Psychology* 34.4: 398–421.

Lawrence, D. 2015. Phonetic variation as a cue to regional identity: An experimental approach. *York Papers in Linguistics* 2: 42–63.

Lawson, S. and I. Sachdev. 2000. Codeswitching in Tunisia: Attitudinal and behavioural dimensions. *Journal of Pragmatics* 32.9: 1343–1361.

Lazaraton, A. 2005. Quantitative research methods. In E. Hinkel, ed. *Handbook of Research in Second Language Teaching and Learning*. Mahwah: Lawrence Erlbaum, 209–224.

Lazaraton, A. 2013. Ethics in qualitative research. In C. A. Chapelle, ed. *The Encyclopedia of Applied Linguistics*. Wiley Online Library. 10.1002/9781405198431.wbeal1410.

Le, T. P. 2018. Vocal expression in schizophrenia: Examining the role of vocal accommodation in clinical ratings of speech. Unpublished MA thesis, Louisiana State University. https://digitalcommons.lsu.edu/gradschool_theses/4383.

Lee, R. 2015. Implicit associations with Welsh in two educational contexts. *York Papers in Linguistics* 2.14: 81–105.

Lee, R. R. 1971. Dialect perception: A critical review and re-evaluation. *Quarterly Journal of Speech* 57.4: 410–417.

Lee, Y., S. Gordon Danner, B. Parrell, S. Lee, L. Goldstein, and D. Byrd. 2018. Articulatory, acoustic, and prosodic accommodation in a cooperative maze navigation task. *PLoS ONE* 13.8: e0201444.

LeFave, N. 2016. Language attitudes of Twitter users toward New York City English. Presented at Digital Humanities, Kraków, 11–16 July.

Lehnert, T. E., S. Krolak-Schwerdt, and T. Hörstermann. 2018. Language and nationality attitudes as distinct factors that influence speaker evaluations: Explicit versus implicit attitudes in Luxembourg. *Language and Communication* 61: 58–70.

Leimgruber, J. R. E. 2019. *Language Planning and Policy in Quebec: A Comparative Perspective with Views from Wales and Singapore*. Tübingen: Narr.

Leinonen, T. 2016. Attitudes, salience, and accommodation-quantity in Finland-Swedish. Presented at Experimental Approaches to Perception and Production 3, Vienna, 21–24 September.

Lev-Ari, S. and B. Keysar. 2010. Why don't we believe non-native speakers? The influence of accent on credibility. *Journal of Experimental Social Psychology* 46.6: 1093–1096.

Levine, M. V. 1990. *The Reconquest of Montreal: Language Policy and Social Change in a Bilingual City*. Philadelphia: Temple University Press.

Levinson, S. 1983. *Pragmatics*. Cambridge: Cambridge University Press.

Levon, E. 2014. Categories, stereotypes, and the linguistic perception of sexuality. *Language in Society* 43.5: 539–566.

Levon, E. 2018. Organizing and processing your data: The nuts and bolts of quantitative analyses. In L. Litosseliti, ed. *Research Methods in Linguistics*. 2nd ed. London: Bloomsbury, 140–166.

Levon, E., D. Sharma, Y. Ye, A. Cardoso, and D. Watt. 2019. Real-time evaluations of accent and professional competence. Presented at Experimental Approaches to Perception and Production, Münster, 26–28 September. https://accentbiasbritain .org/wp-content/uploads/2019/10/Levon_et_al-exapp-slides_final.pdf.

Lewis, E. G. 1981. *Bilingualism and Bilingual Education*. Oxford: Pergamon.

Liberman, Z., A. L. Woodward, and K. D. Kinzler. 2017a. Preverbal infants infer third-party social relationships based on language. *Cognitive Science* 41.S3: 622–634.

Liberman, Z., A. L. Woodward, and K. D. Kinzler. 2017b. The origins of social categorization. *Trends in Cognitive Sciences* 21.7: 556–568.

Liberman, Z., A. L. Woodward, B. Keysar, and K. D. Kinzler. 2017c. Exposure to multiple languages enhances communication skills in infancy. *Developmental Science* 20.1: e12420.

Liberman, Z., A. L. Woodward, K. R. Sullivan, and K. D. Kinzler. 2016. Early emerging system for reasoning about the social nature of food. *Proceedings of the National Academy of Sciences* August 23, 113.34: 9480–9485.

Liebscher, G. and J. Dailey-O'Cain. 2009. Language attitudes in interaction. *Journal of Sociolinguistics* 13.2: 195–222.

Liebscher, G. and J. Dailey-O'Cain. 2017. Contextualizing language attitudes: An interactional perspective. *Language and Linguistics Compass* 11.9: e12250.

Likert, R. 1932. A technique for the measurement of attitudes. *Archives of Psychology* 140: 5–55.

Lin, Y. 2018. Stylistic variation and social perception in second dialect acquisition. Unpublished PhD dissertation, The Ohio State University.

Lindemann, S. 2003. Koreans, Chinese or Indians? Attitudes and ideologies about non-native English speakers in the United States. *Journal of Sociolinguistics* 7.3: 348–364.

Lindemann, S. 2005. Who speaks 'broken English'? US undergraduates' perceptions of non-native English. *International Journal of Applied Linguistics* 15.2: 187–212.

Lindgren, K. P., C. Neighbors, B. A. Teachman, and R. W. Wiers. 2013. I drink therefore I am: Validating alcohol-related implicit association tests. *Psychology of Addictive Behaviors* 27.1: 1–13.

Lippi-Green, R. 2012. *English with an Accent: Language, Ideology, and Discrimination in the United States*. 2nd ed. London: Routledge.

Littré, E. 1863–1878. *Dictionnaire de la langue française*. Hachette: Paris.

Llamas, C. 2007. 'A place between places': Language and identities in a border town. *Language in Society* 36.4: 579–604.

Llamas, C. and D. Watt. 2014. Scottish, English, British? Innovations in attitude measurement. *Language and Linguistics Compass* 8.11: 610–617.

Llamas, C., D. Watt, and A. MacFarlane. 2016. Estimating the relative sociolinguistic salience of segmental variables in a dialect boundary zone. *Frontiers in Psychology* 7: 1163.

Lodge, R. A. 2014. Jacques-Louis Ménétra and his experience of the langue d'oc. In G. Rutten, R. Vosters, and W. Vandenbussche, eds. *Norms and Usage in Language History, 1600–1900. A sociolinguistic and comparative perspective*. Amsterdam: John Benjamins, 201–222.

Logan, G. D. 1980. Attention and automaticity in Stroop and priming tasks: Theory and data. *Cognitive Psychology* 12.4: 523–553.

Long, D. 1999. Geographical perception of Japanese dialect regions. In D. Long and D. R. Preston, eds. *Handbook of Perceptual Dialectology*. Amsterdam: John Benjamins, 177–198.

Long, D. and D. R. Preston, eds. 2002. *Handbook of Perceptual Dialectology*. Vol. 2. Amsterdam: John Benjamins.

Long, D. and Y.-C. Yim. 2002. Regional differences in the perception of Korean dialects. In D. Long and D. R. Preston, eds. *Handbook of Perceptual Dialectology*. Amsterdam: John Benjamins, 249–275.

Loudermilk, B. C. 2015. Implicit attitudes and the perception of sociolinguistic variation. In A. Prikhodkine and D. R. Preston, eds. *Responses to Language Varieties: Variability, Processes and Outcomes*. Amsterdam: John Benjamins, 137–156.

Loureiro-Rodríguez, V., M. M. Boggess, and A. Goldsmith. 2013. Language attitudes in Galicia: Using the matched-guise test among high school students. *Journal of Multilingual and Multicultural Development* 34.2: 136–153.

Lucas, C. and C. Valli. 1992. *Language Contact in the American Deaf Community*. San Diego: Academic Press.

Luk, G. and S. Surrain. 2019. The perceptions of bilingualism scales. *PsyArXiv, August 3*. 10.31234/osf.io/s32zb.

Lynch, K. 1960. *The Image of the City*. Cambridge: The MIT Press.

MacIntyre, P. 2007. Willingness to communicate in the second language: Understanding the decision to speak as a volitional process. *The Modern Language Journal* 91.4: 564–576.

Macnaghten, P. and G. Myers. 2004. Focus groups. In C. Seale, G. Gobo, J. F. Gubrium, and D. Silverman, eds. *Qualitative Research Practice*. London: SAGE, 65–79.

Maegaard, M. 2001. 'Jeg er da stolt af at jeg er sønderjyde – altså sådan forholdsvis'. Om sprogbrug og sprogholdninger hos sønderjyske unge. *Danske Talesprog* 2: 77–166.

Magué, J.-P., N. Rossi-Gensane, and P. Halté. 2020. De la segmentation dans les tweets: Signes de ponctuation, connecteurs, émoticônes et émojis. *Corpus* 20. http://journals.openedition.org/corpus/4619.

Maison, D., A. G. Greenwald, and R. H. Bruin. 2004. Predictive validity of the Implicit Association Test in studies of brands, consumer attitudes, and behavior. *Journal of Consumer Psychology* 14.4: 405–415.

Mann, C. and F. Stewart. 2000. *Internet Communication and Qualitative Research: A Handbook*. London: SAGE.

Manning, B., A. Harpole, E. Harriott, K. Postolowicz, and E. Norton. 2020. Taking language samples home: Feasibility, reliability, and validity of child language

samples conducted remotely with video chat versus in-person. *PsyArXiv* May 4. 10.31234/osf.io/23u8a.

Manstead, A. S. R. and A. H. Fisher. 2002. Beyond the universality-specificity dichotomy. *Cognition and Emotion* 16.1: 1–9.

ManyBabies Consortium. 2020. Quantifying sources of variability in infancy research using the infant-directed speech preference. *Advances in Methods and Practices in Psychological Science* 3.1: 24–52.

Marie, A. S. 2020. Finding interpreters who can 'OPEN-THEIR-MIND': How Deaf teachers select sign language interpreters in Hà Nội, Việt Nam. In A. Kusters, E. M. Green, E. Moriarty, and K. Snoddon, eds. *Sign Language Ideologies in Practice*. Berlin: Mouton de Gruyter/Ishara Press, 129–144.

Markel, N. N., R. M. Eisler, and H. W. Reese. 1967. Judging personality from dialect. *Journal of Verbal Learning and Verbal Behavior* 6.1: 33–35.

Martin, D. 2015. IAT: *Functions to Use with Data from the Implicit Association Test*. R package version 0.2. http://CRAN.R-project.org/package=IAT.

Martin-Jones, M., A. Blackledge, and A. Creese, eds. 2012. *The Routledge Handbook of Multilingualism*. New York: Routledge.

Mason, P. R. and B. H. Davis. 2007. More than the words: Using stance-shift analysis to identify crucial opinions and attitudes in online focus groups. *Journal of Advertising Research* 47.4: 496–506.

Matoré, G. 1968. *Histoire des dictionnaires français*. Paris: Larousse.

Mattheier, K. J. 2003. German. In A. Deumert and W. Vandenbussche, eds. *Germanic Standardizations: Past to Present*. Amsterdam: John Benjamins, 211–244.

McCaskill, C., C. Lucas, R. Bayley, and J. Hill. 2011. *The Hidden Treasure of Black ASL: Its History and Structure*. Washington: Gallaudet University Press.

McCullough, E. A., C. G. Clopper, and L. Wagner. 2019a. Regional dialect perception across the lifespan: Identification and discrimination. *Language and Speech* 62.1: 115–136.

McCullough, E. A., C. G. Clopper, and L. Wagner. 2019b. The development of regional dialect locality judgments and language attitudes across the life span. *Child Development* 90.4: 1080–1096.

McIntosh, J. 2005. Language essentialism and social hierarchies among Giriama and Swahili. *Journal of Pragmatics* 37.12: 1919–1944.

McKay, R., J. Arciuli, A. Atkinson, E. Bennett, and E. Pheils. 2010. Lateralisation of self-esteem: An investigation using a dichotically presented auditory adaptation of the Implicit Association Test. *Cortex* 46.3: 367–373.

McKee, R. and D. McKee. 2020. Globalization, hybridity, and vitality in the linguistic ideologies of New Zealand Sign Language users. *Language and Communication* 74: 164–181.

McKenzie, R. M. 2008a. Social factors and non-native attitudes towards varieties of spoken English: A Japanese case study. *International Journal of Applied Linguistics* 18.1: 63–88.

McKenzie, R. M. 2008b. The role of variety recognition in Japanese university students' attitudes towards English speech varieties. *Journal of Multilingual and Multicultural Development* 29.2: 139–153.

McKenzie, R. M. 2010. *The Social Psychology of English as a Global Language: Attitudes, Awareness and Identity in the Japanese Context*. London: Springer.

McKenzie, R. M. and E. Carrie. 2018. Implicit–explicit attitudinal discrepancy and the investigation of language attitude change in progress. *Journal of Multilingual and Multicultural Development* 39.9: 830–844.

McKenzie, R. M., P. Kitikanan, and P. Boriboon. 2016. The competence and warmth of Thai students' attitudes towards varieties of English: The effect of gender and perceptions of L1 diversity. *Journal of Multilingual and Multicultural Development* 37.6: 536–550.

McKenzie, R. M., M. Huang, T. T. Ong, and N. Snodin. 2019. Socio-psychological salience and categorization accuracy of speaker place of origin. *Lingua* 228: 102705.

McNamara, T. P. 2005. *Semantic Priming: Perspectives from Memory and Word Recognition*. New York: Psychology Press.

Mehler, J., P. Jusczyk, G. Lambertz, N. Halsted, J. Bertoncini, and C. Amiel-Tison. 1988. A precursor of language acquisition in young infants. *Cognition* 29.2: 143–178.

Merton, R. K., M. Fiske, and P. L. Kendall. 1956/1990. The focused interview. *American Journal of Sociology* 51: 541–557.

Mertz, E. 1989. Sociolinguistic creativity: Cape Breton Gaelic's linguistic 'tip'. In N. C. Dorian, ed. *Investigating Obsolescence: Studies in Language Contraction and Death*. Cambridge: Cambridge University Press, 103–116.

Meyerhoff, M., E. Schleef, and L. MacKenzie. 2015. *Sociolinguistics: A Practical Guide to Data Collection and Analysis*. London: Routledge.

Milani, T. M. and S. Johnson. 2010. Critical intersections: Language ideologies and media discourse. In S. Johnson and T. M. Milani, eds. *Language Ideologies and Media Discourse: Texts, Practises, Policies*. London: Continuum, 3–14.

Millar, R. M. [and D. Horsbroch]. 2000. Covert and overt language attitudes to the Scots tongue expressed in the Statistical accounts of Scotland. In D. Kastovsky and A. Mettinger, eds. *The History of English in a Social Context*. Berlin: De Gruyter Mouton, 169–198.

Milroy, J. 2001. Language ideologies and the consequences of standardization. *Journal of Sociolinguistics* 5.4: 530–555.

Milroy, J. 2012. Sociolinguistics and ideologies in language history. In J. M. Hernández-Campoy and J. C. Conde-Silvestre, eds. *The Handbook of Historical Sociolinguistics*. Chichester: Wiley Blackwell, 571–584.

Milroy, J. and L. Milroy. 2012. *Authority in Language: Investigating Standard English*. 4th ed. London: Routledge.

Milroy, L. and M. Gordon. 2003. *Sociolinguistics: Method and Interpretation*. Oxford: Blackwell.

Mitchell, J. P., B. A. Nosek, and M. R. Banaji. 2003. Contextual variations in implicit evaluation. *Journal of Experimental Psychology: General* 132.3: 455–469.

Mitchiner, J. C. 2014. Deaf parents of cochlear-implanted children: Beliefs on bimodal bilingualism. *Journal of Deaf Studies and Deaf Education* 20.1: 51–66.

Moges, R. T. 2015. Challenging sign language lineages and geographies: The case of Eritrean, Finnish, and Swedish Sign Languages. In M. Friedner and A. Kusters, eds. *It's a Small World: International Deaf Spaces and Encounters*. Washington: Gallaudet University Press, 83–94.

Moïse, L. C. and R. Y. Bourhis. 1994. Langage et ethnicité: Communication interculturelle à Montréal, 1977–1991. *Canadian Ethnic Studies* 26.1: 86–107.

Molden, D. 2014. Understanding priming effects in social psychology: An overview and integration. *Social Cognition* 32.Supplement, 243–249.

Montgomery, C. 2007. Northern English dialects: A perceptual approach. Unpublished PhD dissertation, University of Sheffield. http://etheses.whiterose.ac.uk/1203/.

Montgomery, C. 2011a. Sprachraum and its perception. In A. Lameli, R. Kehrein, and S. Rabanus, eds. *Language and Space – An International Handbook of Linguistic Variation*. Vol. 2. *Language Mapping*. Berlin: Mouton de Gruyter, 586–605.

Montgomery, C. 2011b. Starburst charts: Methods for investigating the geographical perception of and attitudes towards speech samples. *Studies in Variation, Contacts and Change in English* 7. https://varieng.helsinki.fi/series/volumes/07/montgomery/index.html.

Montgomery, C. 2012. The effect of proximity in perceptual dialectology. *Journal of Sociolinguistics* 16.5: 638–668.

Montgomery, C. 2014. Perceptual ideology across the Scottish-English border. In D. Watt and C. Llamas, eds. *Language, Borders and Identities*. Edinburgh: Edinburgh University Press, 118–136.

Montgomery, C. 2016. Perceptual prominence of city-based dialect areas in Great Britain. In J. Cramer and C. Montgomery, eds. *Cityscapes and Perceptual Dialectology: Global Perspectives on Non-Linguists Knowledge of the Dialect Landscape*. Boston: Walter de Gruyter, 185–207.

Montgomery, C. 2018. The perceptual dialectology of England. In N. Braber and S. Jansen, eds. *Sociolinguistics in England*. Basingstoke: Palgrave, 127–164.

Montgomery, C. and E. Moore. 2018. Evaluating S(c)illy voices: The effects of salience, stereotypes, and co-present language variables on real-time reactions to regional speech. *Language* 94.3: 629–661.

Montgomery, C. and P. Stoeckle. 2013. Geographic information systems and perceptual dialectology: A method for processing draw-a-map data. *Journal of Linguistic Geography* 1.1: 52–85.

Moon, C., R. P. Cooper, and W. P. Fifer. 1993. Two-day-olds prefer their native language. *Infant Behavior and Development* 16.4: 495–500.

Mooney, D. and J. Hawkey. 2019. The variable palatal lateral in Occitan and Catalan: Linguistic transfer or regular sound change? *Journal of French Language Studies* 29.2: 281–303.

Moriarty Harrelson, E. 2019. Deaf people with 'no language': Mobility and flexible accumulation in languaging practices of deaf people in Cambodia. *Applied Linguistics Review* 10.1: 55–72.

Moriarty, E. 2020a. Exploring sign language histories and documentation projects in post-conflict areas. In A. Kusters, E. M. Green, E. Moriarty, and K. Snoddon, eds. *Sign Language Ideologies in Practice*. Berlin: Mouton de Gruyter/Ishara Press, 309–330.

Moriarty, E. 2020b. Filmmaking in a linguistic ethnography of deaf tourist encounters. *Sign Language Studies* 20.4: 572–594.

Morse, J. M. 2003. Principles of mixed methods and multimethod research design. In A. Tashakkori and C. Teddlie, eds. *Handbook of Mixed Methods in Social and Behavioral Research*. Thousand Oaks: SAGE, 189–208.

Morstatter, F., J. Pfeffer, H. Liu, and K. M. Carley. 2013. Is the sample good enough? Comparing data from Twitter's Streaming API with Twitter's Firehose. *Proceedings*

of the Seventh International AAAI Conference on Web and Social Media, 7.1: 400–408. https://ojs.aaai.org/index.php/ICWSM/article/view/14401.

Moschonas, S. and J. Spitzmüller. 2010. Prescriptivism in and about the media: A comparative analysis of corrective practices in Greece and Germany. In S. Johnson and T. M. Milani, eds. *Language Ideologies and Media Discourse: Texts, Practices, Policies*. London: Continuum, 17–40.

Moyna, M. I. and V. Loureiro-Rodríguez. 2017. La técnica de máscaras emparejadas para evaluar actitudes hacia formas de tratamiento en el español de Montevideo. *Revista Internacional de Lingüística Iberoamericana* 15.2: 47–82.

Muir, K., A. Joinson, R. Cotterill, and N. Dewdney. 2017. Linguistic style accommodation shapes impression formation and rapport in Computer-Mediated Communication. *Journal of Language and Social Psychology* 36.5: 525–548.

Munson, B., K. Ryherd, and S. Kemper. 2017. Implicit and explicit gender priming in English lingual sibilant fricative perception. *Linguistics* 55.5: 1073–1107.

Murphy, S. T. and R. B. Zajonc. 1993. Affect, cognition, and awareness: Affective priming with optimal and suboptimal stimulus exposures. *Journal of Personality and Social Psychology* 64.5: 723–739.

Murray, J. 2017. Academic and community interactions in the formation of Deaf Studies in the United States. In A. Kusters, M. De Meulder, and D. O'Brien, eds. *Innovations in Deaf Studies: The Role of Deaf Scholars*. Oxford: Oxford University Press, 77–100.

Napier, J. 2021. *Sign Language Brokering in Deaf-Hearing Families*. London: Palgrave Macmillan.

Nazzi, T., J. Bertoncini, and J. Mehler. 1998. Language discrimination by newborns: Toward an understanding of the role of rhythm. *Journal of Experimental Psychology: Human Perception and Performance* 24.3: 756–766.

Nazzi, T., P. W. Jusczyk, and E. K. Johnson. 2000. Language discrimination by English-learning 5-month-olds: Effects of rhythm and familiarity. *Journal of Memory and Language* 43.1: 1–19.

Neely, J. H. 1977. Semantic priming and retrieval from lexical memory: Roles of inhibitionless spreading activation and limited-capacity attention. *Journal of Experimental Psychology: General* 106.3: 226–254.

Neely, J. H. 1991. Semantic priming effects in visual word recognition: A selective review of current findings and theories. In D. Besner and G. W. Humphreys, eds. *Basic Processes in Reading: Visual Word Recognition*. Hillsdale: Lawrence Erlbaum, 264–336.

Nesdale, D. and R. Rooney. 1996. Evaluations and stereotyping of accented speakers by pre-adolescent children. *Journal of Language and Social Psychology* 15.2: 133–154.

Ness Evans, A. and B. J. Rooney. 2013. *Methods in Psychological Research*. 3rd ed. New York: SAGE.

Neuendorf, K. A. 2017. *The Content Analysis Guidebook*. 2nd ed. Thousand Oaks: SAGE.

Nevalainen, T. and H. Raumolin-Brunberg. 2017. *Historical Sociolinguistics. Language Change in Tudor and Stuart England*. 2nd ed. New York: Routledge.

Niedzielski, N. A. and D. R. Preston. 2003. *Folk Linguistics*. Berlin: Mouton de Gruyter.

Nielsen, M., D. Haun, J. Kärtner, and C. H. Legare. 2017. The persistent sampling bias in developmental psychology: A call to action. *Journal of Experimental Child Psychology* 162: 31–38.

Nielsen, D. and J. Hay. 2005. Perceptions of regional dialects in New Zealand. *Te Reo* 48: 95–110.

Nikander, P. 2008. Working with transcripts and translated data. *Qualitative Research in Psychology* 5.3: 225–231.

Nilsson, J., T. Leinonen, and L. Wenner. 2019. Tracking change in social meaning: The indexicality of 'damped' /i/ in rural Sweden. In J.-A. Villena-Ponsoda, F. Díaz-Montesinos, A.-M. Ávila-Muñoz, and M. Vida-Castro, eds. *Language Variation – European Perspectives VII. Selected Papers from the Ninth International Conference on Language Variation in Europe (ICLaVE9), Malaga, June 2017*. Amsterdam: John Benjamins, 145–158.

Nonaka, A. M. 2014. (Almost) everyone here spoke Ban Khor Sign Language – Until they started using TSL: Language shift and endangerment of a Thai village sign language. *Language and Communication* 38: 54–72.

Nortier, J. and B. Svendsen. 2015. *Language, Youth and Identity in the 21st Century: Linguistic Practices across Urban Spaces*. Cambridge: Cambridge University Press.

Nosek, B. A., A. G. Greenwald, and M. R. Banaji. 2005. Understanding and using the Implicit Association Test II: Method variables and construct validity. *Personality and Social Psychology Bulletin* 31.2: 166–180.

Nussbaum, J. F., A. Lucas, and T. McManus. 2012. Educational contexts and intergroup communication. In H. Giles, ed. *The Handbook of Intergroup Communication*. London: Routledge, 306–318.

O'Brien, D. and A. Kusters. 2017. Visual methods in Deaf Studies: Using photography and filmmaking in research with deaf people. In A. Kusters, M. De Meulder, and D. O'Brien, eds. *Innovations in Deaf Studies: The Role of Deaf Scholars*. Oxford: Oxford University Press, 265–298.

O'Cathain, A. and K. J. Thomas. 2004. 'Any other comments?': open questions on questionnaires – a bane or a bonus to research? *BMC Medical Research Methodology* 4: 25.

O'Connell, N. 2017. Writing the Deaf self in autoethnography. In A. Kusters, M. De Meulder, and D. O'Brien, eds. *Innovations in Deaf Studies. The Role of Deaf Scholars*. Oxford: Oxford University Press, 297–315.

O'Rourke, B. 2011a. *Galician and Irish in the European Context: Attitudes towards Weak and Strong Minority Languages*. Basingstoke: Palgrave Macmillan.

O'Rourke, B. 2011b. Whose language is it? Struggles for language ownership in an Irish language classroom. *Journal of Language, Identity and Education* 10.5: 327–345.

O'Rourke, B. 2011c. Negotiating multilingualism in an Irish primary school context. In C. Hélot, and M. Ó Laoire, eds. *Language Policy for the Multilingual Classroom: Pedagogy of the Possible*. Bristol: Multilingual Matters, 105–125.

O'Rourke, B. 2017. Negotiating the standard in contemporary Galicia. In P. Lane, J. Costa, and H. De Korne, eds. *Standardizing Minority Languages: Competing Ideologies of Authority and Authenticity in the Global Periphery*. Oxon: Routledge, 84–100.

O'Rourke, B. 2018. Just use it! Linguistic conversion and identities of resistance amongst Galician new speakers. *Journal of Multilingual and Multicultural Development* 39.5: 407–418.

O'Rourke, B. 2019. Carving out breathing spaces for Galician: New speakers' investment in monolingual practices. In J. Jaspers and L. M. Madsen, eds. *Critical Perspectives on Linguistic Fixity and Fluidity: Languagised Lives*. New York: Routledge.

O'Rourke, B. and G. Hogan-Brun. 2013. Language attitudes in language policy and planning. In C. A. Chapelle, ed. *The Encyclopedia of Applied Linguistics*. Oxford: Wiley-Blackwell. 10.1002/9781405198431.wbeal0607.

O'Rourke, B. and F. Ramallo. 2013. Competing ideologies of linguistic authority amongst new speakers in contemporary Galicia. *Language in Society* 42.3: 287–305.

O'Rourke, B. and F. Ramallo. 2015. Neofalantes as an active minority: Understanding language practices and motivations for change amongst new speakers of Galician. *International Journal of the Sociology of Language* 231: 147–165.

O'Rourke, B., J. Pujolar, and F. Ramallo. 2015. New speakers of minority language: The challenging opportunity – Foreword. *International Journal of the Sociology of Language* 231: 1–20.

Oakes, L. 2010. Lambs to the slaughter? Young Francophones and the role of English in Quebec today. *Multilingua* 29.3–4: 265–288.

Oakes, L. 2021. Pluricentric linguistic justice: A new ethics-based approach to pluricentricity in French and other languages. *Sociolinguistica* 35.1.

Oakes, L. and J. Warren. 2007. *Language, Citizenship and Identity in Quebec*. Basingstoke: Palgrave Macmillan.

Obar, J. A. and S. Wildman. 2015. Social media definition and the governance challenge: An introduction to the special issue. *Telecommunications Policy* 39.9: 745–750.

Offord, D., V. Rjéoutski, and G. Argent. 2018. Language attitudes. In D. Offord, V. Rjéoutski, and G. Argent. *The French Language in Russia. A Social, Political, Cultural, and Literary History*. Amsterdam: Amsterdam University Press, 461–517.

Ohama, M. L. F., C. C. Gotay, I. S. Pagano, L. Boles, and D. D. Craven. 2000. Evaluations of Hawaii Creole English and Standard English. *Journal of Language and Social Psychology*. 19.3: 357–377.

Olson, J. M., R. D. Goffin, and G. A. Haynes. 2007. Relative versus absolute measures of explicit attitudes: Implications for predicting diverse attitude-relevant criteria. *Journal of Personality and Social Psychology* 93.6: 907–926.

Olson, M. A. and R. H. Fazio. 2004. Reducing the influence of extrapersonal associations on the Implicit Association Test: Personalizing the IAT. *Journal of Personality and Social Psychology* 86.5: 653–667.

Open Science Collaboration. 2015. Estimating the reproducibility of psychological science. *Science* 349.6251: 943.

Oppenheim, A. N. 2000. *Questionnaire Design, Interviewing and Attitude Measurement*. London: Pinter.

Ord, J. K. and A. Getis. 1995. Local spatial autocorrelation statistics: Distributional issues and an application. *Geographical Analysis* 27.4: 286–306.

Orena, A. J., K. Byers-Heinlein, and L. Polka. 2019. What do bilingual infants actually hear? Evaluating measures of language input to bilingual-learning 10-month-olds. *Developmental Science* e12901.

Ortner, L. 1995. Resistance and the problem of ethnographic refusal. *Comparative Studies in Society and History* 37.1: 173–193.

Osgood, C. E., G. J. Suci, and P. H. Tannenbaum. 1957. *The Measurement of Meaning*. Urbana: University of Illinois Press.

Oxoli, D., G. Prestifilippo, D. Bertocchi, and M. A. Zurbaran. 2017. Enabling spatial autocorrelation mapping in QGIS: The Hotspot Analysis Plugin. *Geoingegneria Ambientale e Mineraria* 151.2: 45–50.

Oxoli, D., M. A. Zurbaran, S. Shaji, and A. K. Muthusamy. 2016. Hotspot analysis: A first prototype Python plugin enabling exploratory spatial data analysis into QGIS. *PeerJ Preprints*. 10.7287/peerj.preprints.2204v4.

Padden, C. 1990. Folk explanation in language survival. In L. Bragg, ed. *Deaf World: A Historical Reader and Primary Sourcebook*. New York: New York University Press, 104–115.

Paffey, D. 2010. Globalizing Standard Spanish: The promotion of 'panhispanism' by Spain's language guardians. In S. Johnson and T. M. Milani, eds. *Language Ideologies and Media Discourse: Texts, Practises, Policies*. London: Continuum, 41–60.

Paffey, D. 2012. *Language Ideologies and the Globalization of 'Standard' Spanish*. London: Bloomsbury.

Pagé, M. and P. Lamarre. 2010. *L'intégration linguistique des immigrants au Québec*. Institut de recherche en politiques publiques. http://irpp.org/wp-content/uploads/assets/research/diversity-immigration-and-integration/lintegration-linguistique-des-immigrants-au-quebec-michel-page-avec-la-collaboration-de-patricia-lamarre-idees-analyses-debats-depuis-1972/IRPP-Study-no3.pdf.

Page, R. 2012. The linguistics of self-branding and micro-celebrity in Twitter: The role of hashtags. *Discourse and Communication*. 6.2: 181–201.

Palfreyman, N. 2019. *Variation in Indonesian Sign Language*. Berlin: Mouton de Gruyter.

Paltridge, J. and H. Giles. 1984. Attitudes towards speakers of regional accents of French: Affects of regionality, age and sex of listeners. *Linguistische Berichte* 90: 71–85.

Palviainen, Å. and A. Huhta. 2015. Investigating relationships between language attitudes and policy issues. In F. M. Hult and D. C. Johnson, eds. *Research Methods in Language Policy and Planning: A Practical Guide*. Oxford: Wiley Blackwell, 193–204.

Pantos, A. 2019. Implicitness, automaticity, and consciousness in language attitudes research. Are they related and how do we characterize them? *Linguistics Vanguard* 5.s1: 20180007.

Pantos, A. J. and A. W. Perkins. 2012. Measuring implicit and explicit attitudes toward foreign accented speech. *Journal of Language and Social Psychology* 32.1: 3–20.

Paquette-Smith, M., H. Buckler, K. S. White, J. Choi, and E. K. Johnson. 2019. The effect of accent exposure on children's sociolinguistic evaluation of peers. *Developmental Psychology* 55.4: 809–822.

Pardo, J. S., R. Gibbons, A. Suppes, and R. M. Krauss. 2012. Phonetic convergence in college roommates. *Journal of Phonetics* 40.1: 190–197.

Parks, E. S. 2014. Constructing national and international deaf identity: Perceived use of American Sign Language. In D. Watt and C. Llamas, eds. *Language, Borders and Identity*. Edinburgh: Edinburgh University Press, 206–217.

Pasquini, E. S., K. H. Corriveau, M. Koenig, and P. L. Harris. 2007. Preschoolers monitor the relative accuracy of informants. *Developmental Psychology* 43.5: 1216–1226.

Pavalanathan, U. and J. Eisenstein. 2015. Audience-modulated variation in online social media. *American Speech* 90.2: 187–213.

Pavlenko, A. 2002. Poststructuralist approaches to the study of social factors in second language learning and use. In V. J. Cook, ed. *Portraits of the L2 User*. Clevedon: Multilingual Matters, 277–302.

Pear, T. H. 1931. *Voice and Personality*. London: Wiley.

Pearce, M. 2009. A perceptual dialect map of North East England. *Journal of English Linguistics* 37.2: 162–192.

Pearson, B. Z., T. Conner, and J. E. Jackson. 2013. Removing obstacles for African American English-speaking children through greater understanding of language difference. *Developmental Psychology* 49.1: 31–44.

Peersman, C. 2012. Written vernaculars in Medieval and Renaissance times. In J. M. Hernández-Campoy and J. C. Conde-Silvestre, eds. *The Handbook of Historical Sociolinguistics*. Chichester: Wiley Blackwell, 639–654.

Peirce, J. W., J. R. Gray, S. Simpson, M. R. MacAskill, R. Höchenberger, H. Sogo, E. Kastman, and J. Lindeløv. 2019. PsychoPy2: Experiments in behavior made easy. *Behavior Research Methods* 1.1: 195–203.

Peña, M., A. Maki, D. Kovačić, G. Dehaene-Lambertz, H. Koizumi, F. Bouquet, and J. Mehler. 2003. Sounds and silence: An optical topography study of language recognition at birth. *Proceedings of the National Academy of Sciences* 100.20: 11702–11705.

Penke, L., J. Eichstaedt, and J. B. Asendorpf. 2006. Single-Attribute Implicit Association Tests (SA-IAT) for the assessment of unipolar constructs: The case of sociosexuality. *Experimental Psychology* 53.4: 283–291.

Percy, C. 2014. Early advertising and newspapers as sources of sociolinguistic investigation. In J. M. Hernández-Campoy and J. C. Conde-Silvestre, eds. *The Handbook of Historical Sociolinguistics*. Chichester: Wiley Blackwell, 191–205.

Perdue, C. W., J. F. Dovidio, M. B. Gurtman, and R. B. Tyler. 1990. Us and them: Social categorization and the process of intergroup bias. *Journal of Personality and Social Psychology* 59.3: 475–486.

Pérez Casas, M. 2016. Codeswitching and identity among island Puerto Rican bilinguals. In R. E. Guzzardo Tamargo, C. M. Mazak, and M. C. Parafita Couto, eds. *Spanish-English Code-Switching in the Caribbean and the US*. Amsterdam: John Benjamins, 37–60.

Pérez Sabater, C. 2017. Linguistic accommodation in online communication: The role of language and gender. *Revista signos* 50.94: 265–286.

Perneger, T. V., D. S. Courvoisier, P. M. Hudelson, and A. Gayet-Ageron. 2015. Sample size for pre-tests of questionnaires. *Quality of Life Research* 24.1: 147–151.

Pharao, N. and T. Kristiansen. 2019. Reflections on the relation between direct/indirect methods and explicit/implicit attitudes. *Linguistic Vanguard* 5.s1: 20180010.

Pichler, D. C., D. Lillo-Martin, and J. L. Palmer. 2018. A short introduction to heritage signers. *Sign Language Studies* 18.3: 309–327.

Pickering, M. and S. Garrod. 2004. Toward a mechanistic psychology of dialogue. *Behavioral and Brain Sciences* 27.2: 169–190.

Pieras-Guasp, F. 2002. Direct vs. indirect attitude measurement and the planning of Catalan in Mallorca. *Language Problems and Language Planning* 26.1: 51–68.

Pink, S. 2013. *Doing Visual Ethnography*. 3rd ed. London: SAGE.

Pitts, M. J. 2017. International students' cross-cultural communication accommodation through language approximation and topic selection strategies on Facebook and its relationship to the students' acculturation attitude, psychological adjustment, and socio-cultural adaptation. Unpublished MA Thesis, The University of Arizona. https://repository.arizona.edu/handle/10150/596088.

Pizer, G., K. Walters, and R. P. Meier. 2007. Bringing up baby with baby signs: Language ideologies and socialization in hearing families. *Sign Language Studies* 7.4: 387–430.

Platt, J. 2012. The history of the interview. In J. F. Gubrium, J. A. Holstein, A. B. Marvasti, and K. D. McKinney, eds. *The SAGE Handbook of Interview Research: The Complexity of the Craft*. Thousand Oaks: SAGE, 9–26.

Plichta, B. and D. R. Preston. 2005. The /ay/s have it: The perception of /ay/ as a north-south stereotype in United States English. *Acta Linguistica Hafniensia* 37.1: 107–130.

Plonsky, L. and T. Gonulal. 2015. Methodological synthesis in quantitative L2 research: A review of reviews and a case study of exploratory factor analysis. *Language Learning* 65.1: 9–36.

Podesva, R. J., and E. Zsiga. 2013. Sound recordings: Acoustic and articulatory data. In R. J. Podesva and D. Sharma, eds. *Research Methods in Linguistics*. Cambridge: Cambridge University Press, 169–194.

Poplack, S. 1980. Sometimes I'll start a sentence in Spanish y termino en español: Toward a typology of code-switching. *Linguistics* 18.7–8: 581–618.

Potter, J. 2003. Discourse analysis and discursive psychology. In P. M. Camic, J. E. Rhodes, and L. Yardley, eds. *Qualitative Research in Psychology: Expanding Perspectives in Methodology and Design*. Washington: American Psychological Association, 73–94.

Potter, J. and M. Wetherell. 1987. *Discourse and Social Psychology: Beyond Attitudes and Behaviour*. London: SAGE.

Pousada, A. 1999. The singularly strange story of the English Language in Puerto Rico. *Milenio: Revista de Artes y Ciencias* 3: 33–60.

Powell M. C. and R. H. Fazio. 1984. Attitude accessibility as a function of repeated attitudinal expression. *Personality and Social Psychology Bulletin* 10.1: 139–148.

Preston, D. R. 1986. Five visions of America. *Language in Society* 15.2: 221–240.

Preston, D. R. 1989. *Perceptual Dialectology: Non-Linguists' View of Aerial Linguistics*. Dordrecht: Foris.

Preston, D. R. 1993a. Folk dialectology. In D. R. Preston, ed. *American Dialect Research*. Amsterdam: John Benjamins, 333–377.

Preston, D. R. 1993b. The use of folk linguistics. *International Journal of Applied Linguistics* 3.2: 181–259.

Preston, D. R. 1994. Content-oriented discourse analysis and folk linguistics. *Language Sciences* 16.2: 285–331.

Preston, D. R. 1996. Whaddayaknow? The modes of folk linguistic awareness. *Language Awareness* 5.1: 40–74.

Preston, D. R. 1999a. Introduction. In D. R. Preston, ed. *Handbook of Perceptual Dialectology*. Amsterdam: John Benjamins, xxiii–xxxix.

Preston, D. R., ed. 1999b. *Handbook of Perceptual Dialectology*. Vol. 1. Amsterdam: John Benjamins.

Preston, D. R. 1999c. A language attitude approach to the perception of regional variety. In D. R. Preston, ed. *Handbook of Perceptual Dialectology*. Amsterdam: John Benjamins, 359–375.

Preston, D. R. 2009. Are you really smart (or stupid, or cute, or ugly, or cool)? Or do you just talk that way? In M. Maegaard, F. Gregerson, P. Quist, and J. N. Jørgensen, eds. *Language Attitudes, Standardization and Language Change: Perspectives on Themes raised by Tore Kristiansen on the Occasion of his 60th Birthday*. Oslo: Novus Forlag, 105–129.

Preston, D. R. 2010. Perceptual dialectology in the 21st century. In C. A. Anders, M. Hundt, and A. Lasch, eds. *Perceptual Dialectology. Neue Wege der Dialektologie*. Berlin: Mouton de Gruyter, 1–29.

Preston, D. R. 2011. The power of language regard: Discrimination, classification, comprehension and production. *Dialectologia*. Special issue II: 9–33.

Preston, D. R. 2019. How to trick respondents into revealing implicit attitudes – talk to them. *Linguistics Vanguard* 5.s1: 20180006.

Price, A. R. and M. Tamburelli. 2019. Welsh-language prestige in adolescents: Attitudes in the heartlands. *International Journal of Applied Linguistics* 30.2: 195–213.

Prince, M. and M. Davies. 2001. Moderator teams: An extension to focus group methodology. *Qualitative Market Research* 4.4: 207–216.

Project Implicit. 2011. https://implicit.harvard.edu/implicit/ethics.html.

Psychology Software Tools, Inc. 2016. *E-Prime 3.0*. https://www.pstnet.com.

Puah, Y. Y. and S. H. Ting. 2015. Malaysian Chinese speakers' attitudes towards Foochow, Hokkien and Mandarin. *Journal of Multilingual and Multicultural Development* 36.5: 451–467.

Puchta, C. and J. Potter. 2002. Manufacturing individual opinions: Market research focus groups and the discursive psychology of evaluation. *British Journal of Social Psychology* 41.3: 345–363.

Puchta, C. and J. Potter. 2004. *Focus Group Practice*. Thousand Oaks: SAGE.

Purnell, T., W. Isardi, and J. Baugh. 1999. Perceptual and phonetic experiments on American English dialect identification. *Journal of Language and Social Psychology* 18.1: 10–30.

Putter, A. forthcoming. Multilingualism. In S. Ríkharðsdóttir and R. Radulescu, eds. *The Routledge Companion to Medieval English Literature in a Trans-European Context 1100–1500*. London: Routledge.

QGIS Development Team. 2020. *QGIS Geographic Information System. Open Source Geospatial Foundation Project*. http://qgis.osgeo.org

Quer, J. and M. Steinbach. 2019. Handling sign language data: The impact of modality. *Frontiers in Psychology* 10: 483.

R Core Team. 2019. *R: A Language and Environment for Statistical Computing*. Vienna: R Foundation for Statistical Computing. https://www.r-project.org/.

Rakić, T., M. C. Steffens, and A. Mummendey. 2011. Blinded by the accent! The minor role of looks in ethnic categorization. *Journal of Personality and Social Psychology* 100.1: 16–29.

Rakoczy, H., F. Warneken, and M. Tomasello. 2009. Young children's selective learning of rule games from reliable and unreliable models. *Cognitive Development* 24.1: 61–69.

Rallis, S. F. and G. B. Rossman. 2009. Ethics and trustworthiness. In J. Heigham and R. A. Croker, eds. *Qualitative Research in Applied Linguistics: A Practical Introduction*. Houndmills: Palgrave Macmillan, 263–287.

Rampton, B. 1991. Second language learners in a stratified multilingual setting. *Applied Linguistics* 12.3: 229–248.

Ramus, F., M. D. Hauser, C. Miller, D. Morris, and J. Mehler. 2000. Language discrimination by human newborns and by cotton-top tamarin monkeys. *Science* 288.5464: 349–351.

Rangel, N., V. Loureiro-Rodríguez, and M. I. Moyna. 2015. ¿Así Me Escucho Cuando Hablo? Attitudes towards Spanish, English, and Code-Switching in two Texas border towns. *Spanish in Context* 12.2: 177–198.

Rapley, T. 2012. The (extra)ordinary practices of qualitative interviewing. In J. F. Gubrium, J. A. Holstein, A. B. Marvasti, and K. D. McKinney, eds. *The SAGE Handbook of Interview Research: The Complexity of the Craft*. Thousand Oaks: SAGE, 541–554.

Rasinger, S. M. 2018. Quantitative methods: Concepts, frameworks and issues. In L. Litosseliti, ed. *Research Methods in Linguistics*. 2nd ed. London: Bloomsbury, 117–138.

Reagan, T. 2011. Ideological barriers to American Sign Language: Unpacking linguistic resistance. *Sign Language Studies* 11.4: 606–636.

Redinger, D. 2010. Language attitudes and code-switching behaviour in a multilingual educational context: The case of Luxembourg. Unpublished PhD dissertation, The University of York.

Regan, B. P. 2019. Dialectology meets sociophonetics: The social evaluation of Ceceo and Distinción in Lepe, Spain. In W. Chappell, ed. *Recent Advances in the Study of Spanish Sociophonetic Perception*. Amsterdam: John Benjamins, 86–121.

Région Bretagne. 2018. *Enquête socio-linguistique: Qui parle les langues de Bretagne aujourd'hui?* https://www.bretagne.bzh/actualites/enquete-socio-linguistique-qui-parle-les-langues-de-bretagne-aujourdhui/.

Reichmann, O., with contributions from C. Burgi, M. Kaufhold, and C. Schäfer. 1988. Zur Vertikalisierung des Varietätenspektrums in der jüngeren Sprachgeschichte des Deutschen. In H. H. Munske, P. von Polenz, O. Reichmann, and R. Hildebrandt, eds. *Deutscher Wortschatz. Lexikologische Studien Ludwig Erich Schmitt zum 80. Geburtstag von seinen Schülern*. Berlin: De Gruyter, 151–180.

Remysen, W. 2005. La chronique de langage à la lumière de l'expérience canadienne-française: Un essai de définition. In J. Bérubé, K. Gauvin, and W. Remysen, eds. *Les Journées de linguistique: Actes du 18e colloque 11–12 mars 2004*. Québec: Centre interdisciplinaire de recherches sur les activités langagières, 267–281.

Rhodes, M., M. Rizzo, E. Foster-Hanson, K. Moty, R. Leshin, M. M. Wang, J. Benitez, and J. Ocampo. 2020. Advancing developmental science via unmoderated remote research with children. *PsyArXiv*. May 15. 10.31234/osf.io/k2rwy.

Rindal, U. 2010. Constructing identity with L2: Pronunciation and attitudes among Norwegian learners of English. *Journal of Sociolinguistics* 14.2: 240–261.

Ritchie, J. and L. Spencer. 1994. Qualitative data analysis for applied policy research. In A. Bryman and R. G. Burgess, eds. *Analyzing Qualitative Data*. London: Routledge, 173–194.

Rivers, A. M. and J. Sherman. 2018. Experimental design and the reliability of priming effects: Reconsidering the 'train wreck'. *PsyArXiv Preprints*. https://psyarxiv.com/r7pd3/.

Rjéoutski, V., G. Argent, and D. Offord, eds. 2014. *European Francophonie. The Social, Political and Cultural History of an International Prestige Language*. Oxford: Peter Lang.

Robinson, M. D., B. P. Meier, K. J. Zetocha, and K. D. McCaul. 2005. Smoking and the Implicit Association Test: When the contrast category determines the theoretical conclusions. *Basic and Applied Social Psychology* 27.3: 201–212.

Robinson, O. and Henner, J. 2017. The personal is political in *The Deaf Mute Howls*: Deaf epistemology seeks disability justice. *Disability and Society* 32.9: 1416-1436.

Rodgers, E. 2017. Towards a typology of discourse-based approaches to language attitudes. *Language and Communication* 56: 82–94.

Rodríguez Bou, I. 1984. Crisis Del Vernáculo En Puerto Rico: Hallazgos y Sugerencias. *Boletín de La Academia Puertorriqueña de La Lengua Española* 12.1: 5–26.

Rogers, L., W. Tenhouten, C. D. Kaplan, and M. Gardiner. 1977. Hemispheric specialization of language: An EEG study of bilingual Hopi Indian children. *International Journal of Neuroscience* 8.1: 1–6.

Romaine, S. 1995. *Bilingualism*. 2nd ed. Oxford: Blackwell.

Rosch, E. 1975. The nature of mental codes for color categories. *Journal of Experimental Psychology: Human Perception and Performance* 1.4: 303–322.

Rosenberg, M. J. and C. I. Hovland. 1960. Cognitive, affective and behavioural components of attitudes. In M. J. Rosenberg, C. I. Hovland, W. J. McGuire, R. P. Abelson, and J. W. Brehm, eds. *Attitude Organization and Change: An Analysis of Consistency among Attitude Components*. New Haven: Yale University Press, 1–14.

Rosenblum L. D. 2008. Speech perception as a multimodal phenomenon. *Current Directions in Psychological Science* 17.6: 405–409.

Rosenstock, R. 2008. The role of iconicity in International Sign. *Sign Language Studies* 8.2: 131–159.

Rosseel, L. and S. Grondelaers. 2019. Implicitness and experimental methods in language variation research. *Linguistics Vanguard* 5.s1: 20180005.

Rosseel, L., D. Speelman, and D. Geeraerts. 2018. Measuring language attitudes using the Personalized Implicit Association Test: A case study on regional varieties of Dutch in Belgium. *Journal of Linguistic Geography* 6.1: 1–19.

Rosseel, L., D. Speelman, and D. Geeraerts. 2019. Exploring the potential of the Personalized Implicit Association Test to measure language attitudes in context. *Language in Society* 48.3: 429–461.

Rössler, P. 1997. *Die deutschen Grammatiken der zweiten Hälfte des 18. Jahrhunderts in Österreich*. Frankfurt: Peter Lang.

Rossman, G. B. and B. L. Wilson. 1985. Numbers and words: Combining quantitative and qualitative methods in a single large-scale evaluation study. *Evaluation Review* 9.5: 627–643.

Roth, W.-M. 2015. *Rigorous Data Analysis: Beyond Anything Goes*. Rotterdam: Brill.

Rothbart, M. 2001. Category dynamics and the modification of outgroup stereotypes. In R. Brown and S. L. Gaertner, eds. *Blackwell Handbook of Social Psychology: Intergroup Processes*. Oxford: Blackwell, 45–64.

Rothermund, K., S. Teige-Mocigemba, A. Gast, and D. Wentura. 2009. Minimizing the influence of recoding in the Implicit Association Test: The Recoding-Free Implicit Association Test (IAT-RF). *Quarterly Journal of Experimental Psychology* 62.1: 84–98.

Rowley, K. and K. Cormier. 2021. Accent or not? Language attitudes towards regional variation in British Sign Language. *Applied Linguistics Review*. 10.1515/applirev-2020-0144

Rutland, A., L. Cameron, A. Milne, and P. McGeorge. 2005. Social norms and self-presentation: Children's implicit and explicit intergroup attitudes. *Child Development* 76.2: 451–466.

Rutten, G. 2019. *Language Planning as Nation Building. Ideology, Policy and Implementation in the Netherlands, 1750–1850*. Amsterdam: John Benjamins.

Rutten G., A. Krogull, and B. O. Schoemaker. 2020. Implementation and acceptance of national language policy: The case of Dutch (1750-1850). *Language Policy* 19: 259–279.

Rutten, G., R. Vosters, and W. Vandenbussche, eds. 2014. *Norms and Usage in Language History, 1600-1900. A Sociolinguistic and Comparative Perspective*. Amsterdam: John Benjamins.

Rutten, G., R. Vosters, and M. van der Wal. 2015. Frenchification in discourse and practice. Loan morphology in Dutch private letters of the eighteenth and nineteenth century. In R. Peersman, F. Rutten, and R. Vosters, eds. *Past, Present and Future of a Language Border. Germanic-Romanic Encounters in the Low Countries*. Berlin: De Gruyter, 143–169.

Rutten, G., J. Salmons, W. Vandenbussche, and R. Vosters. 2017. Unraveling multilingualism in times past: The interplay of language contact, language use and language planning. *Sociolinguistica* 31.1: 9–20.

Ryan, E. B. 1983. Social psychological mechanisms underlying native speaker evaluations of non-native speech. *Studies in Second Language Acquisition* 5.2: 148–159.

Ryan, E. B. and M. A. Carranza. 1975. Evaluative reactions of adolescents toward speakers of standard English and Mexican American accented English. *Journal of Personality and Social Psychology* 31.5: 855–863.

Ryan, E. B. and H. Giles, eds. 1982. *Attitudes towards Language Variation: Social and Applied Contexts*. London: Edward Arnold.

Ryan, E. B., H. Giles, and M. Hewstone. 1988. The measurement of language attitudes. In U. Ammon, N. Dittmar, and K. J. Mattheier, eds. *Sociolinguistics: An International Handbook of Language and Society*. Vol. 2. Berlin: De Gruyter, 1068–1081.

Ryan, E. B., H. Giles, and R. J. Sebastian. 1982. An integrative perspective for the study of attitudes towards language variation. In E. B. Ryan and H. Giles, eds. *Attitudes Towards Language Variation: Social and Applied Contexts*. London: Edward Arnold, 1–19.

Ryan, E. B., M. Hewstone, and H. Giles. 1984. Language and intergroup attitudes. In J. R. Eiser, ed. *Attitudinal Judgment*. New York: Springer, 135–160.

Ryan, G. W. and H. R. Bernard. 2000. Data management and analysis methods. In N. K. Denzin and Y. S. Lincoln, eds. *Handbook of Qualitative Research*. Thousand Oaks: SAGE, 769–802.

Rymes, B. and A. Leone-Pizzighella. 2018. YouTube-based accent challenge narratives: Web 2.0 as a context for studying the social value of accent. *International Journal of the Sociology of Language* 250: 137–163.

Sachdev, I. and R. Y. Bourhis. 1993. Ethnolinguistic vitality: Some motivational and cognitive considerations. In M. Hogg and D. Abrams, eds. *Group Motivation: Social Psychological Perspectives*. New York: Harvester-Wheatsheaf, 33–52.

Sachdev, I., N. Elmufti, and P. Collins. 1998. Oral assessment and accent evaluation: Some British data. In R. Agnihotri, A. L. Khanna, and I. Sachdev, eds. *Social Psychological Perspectives on Second Language Learning*. New Delhi: SAGE, 187–203.

Saffran, J. R., R. N. Aslin, and E. L. Newport. 1996. Statistical learning by 8-month-old infants. *Science* 274.5294: 1926–1928.

Saffran, J. R., E. K. Johnson, R. N. Aslin, and E. L. Newport. 1999. Statistical learning of tone sequences by human infants and adults. *Cognition* 70.1: 27–52.

Sairio, A. and M. Palander-Collin. 2012. The reconstruction of prestige patterns in language history. In J. M. Hernández-Campoy and J. C. Conde-Silvestre, eds. *The Handbook of Historical Sociolinguistics*. Chichester: Wiley Blackwell, 626–638.

Saldaña, J. 2015. *The Coding Manual for Qualitative Researchers*. 3rd ed. London: SAGE.

Sallabank, J. 2013. *Attitudes to Endangered Languages: Identities and Policies*. Cambridge: Cambridge University Press.

Sankoff, D. and W. Labov. 1979. On the uses of variable rules. *Language in Society* 8.2: 189–222.

Schembri, A., J. Fenlon, R. Rentelis, S. Reynolds, and K. Cormier. 2013. Building the British Sign Language Corpus. *Language Documentation and Conservation* 7: 136–154.

Schiffrin, D. 1985. Everyday argument: The organization of diversity in talk. In T. A. van Dijk, ed. *Handbook of Discourse Analysis*. Vol. 3. *Discourse and Dialogue*. London: Academic Press, 35–46.

Schiffrin, D. 1987. *Discourse Markers*. Cambridge: Cambridge University Press.

Schiffrin, D. 1990. The management of a co-operative self during argument: The role of opinions and stories. In A. D. Grimshaw, ed. *Conflict Talk: Sociolinguistic Investigations of Arguments in Conversation*. Cambridge: Cambridge University Press, 241–259.

Schilling, N. 2014. *Sociolinguistic Fieldwork*. Cambridge: Cambridge University Press.

Schleef, E. 2014. Written surveys and questionnaires in sociolinguistics. In J. Holmes and K. Hazen, eds. *Research Methods in Sociolinguistics: A Practical Guide*. Oxford: Wiley, 42–57.

Schleef, E. and N. Flynn. 2015. Ageing meanings of (ing): Age and indexicality in Manchester, England. *English World-Wide* 36.1: 48–90.

Schnabel, K., R. Banse, and J. B. Asendorpf. 2006. Employing automatic approach and avoidance tendencies for the assessment of implicit personality self-concept: The Implicit Association Procedure (IAP). *Experimental Psychology* 53.1: 69–76.

Schneider, E. W. 2007. *Postcolonial English: Varieties around the World*. Cambridge: Cambridge University Press.

Schneider, W. and J. M. Chein. 2003. Controlled and automatic processing: Behavior, theory, and biological mechanisms. *Cognitive Science* 27.3: 525–559.

Schoel, C., J. Roessel, J. Eck, J. Janssen, B. Petrovic, A. Rothe, S. C. Rudert, and D. Stahlberg. 2013. 'Attitudes Towards Languages' (AToL) scale: A global instrument. *Journal of Language and Social Psychology* 32.1: 21–45.

Schoemaker, B. and G. Rutten. 2017. Standard language ideology and Dutch school inspection reports (1801–1854). *Sociolinguistica* 31.1: 101–116.

Schreier, D. 2013. Collecting ethnographic and sociolinguistic data. In M. Krug and J. Schlüter, eds. *Research Methods in Language Variation and Change*. Cambridge: Cambridge University Press, 17–35.

Schrodt, P. 2020. What is the bar? Differentiating good from great scholarship. *Communication Monographs* 87.1: 1–3.

Schuurman, I., M. Schouppe, H. Hoekstra, and T. van der Wouden. 2003. CGN, an annotated corpus of spoken Dutch. In A. Abeillé, S. Hansen-Schirra, and H. Uszkoreit, eds. *Proceedings of the 4th International Workshop on Linguistically Interpreted Corpora*. Budapest, 101–108.

Schweers, C. W., Jr. and J. A. Vélez. 1999. To be or not to be bilingual in Puerto Rico: That is the issue. *Milenio: Revista de Artes y Ciencias* 3: 23–32.

Scollon, R. and S. Wong Scollon. 2004. *Nexus Analysis: Discourse and the Emerging Internet*. London: Routledge.

Scott, M. 2014. Au revoir to 'Bonjour-Hi': PQ vows to clamp down on creeping bilingualism if it wins majority next election. *National Post* 24, February 2014.

Scotton, C. M. 1977. Linguistic performance as a socioeconomic indicator. *The Journal of Social Psychology* 102.1: 35–45.

Sebba, M. 2007. *Spelling and Society: The Culture and Politics of Orthography Around the World*. Cambridge: Cambridge University Press.

Sedivy, J. 2012. Much ado about Montreal greetings. *Language Log*. https://languagelog.ldc.upenn.edu/nll/?p=4025.

Seggie, I., N. Smith, and P. Hodgins. 1986. Evaluations of employment suitability based on accent alone: An Australian case study. *Language Sciences* 8.2: 129–140.

Selting, M., P. Auer, and D. Barth-Weingarten. 2009. Gesprächsanalytisches Transkriptionssystem 2 (GAT 2). *Gesprächsforschung. Online-Zeitschrift zur verbalen Interaktion* 10: 353–402.

Seror, J. 2013. Computer-Assisted Qualitative Data Analysis Software (CAQDAS). In C. A. Chapelle, ed. *The Encyclopedia of Applied Linguistics*. Wiley Online Library. 10.1002/9781405198431.wbeal0177.

Sherman, J. W., K. C. Klauer, and T. J. Allen. 2010. Mathematical modeling of implicit social cognition: The machine in the ghost. In B. Gawronski and B. K. Payne, eds. *Handbook of Implicit Social Cognition: Measurement, Theory, and Applications*. New York: Guilford, 156–175.

Shortis, T. 2016. Texting and other messaging: Written system in digitally mediated vernaculars. In V. Cook and D. Ryan, eds. *The Routledge Handbook of the English Writing System*. London: Routledge, 487–516.

Sibata, T. 1959. Hôgen kyôkai no ishiki. *Gengo Kenkyû* 36: 1–30.

Siegenbeek, M. 1804. *Verhandeling over de Nederduitsche spelling, ter bevordering van eenparigheid in dezelve*. Amsterdam: Johannes Allart.

Silver, C. and A. Lewins. 2014. *Using Software in Qualitative Research: A Step-by-Step Guide*. London: SAGE.

Silverstein, M. 1976. Language structure and linguistic ideology. In P. R. Clyne, W. F. Hanks, and C. L. Hofbauer, eds. *The Elements: A Parasession on Linguistic Units and Levels*. Chicago: Chicago Linguistic Society, 193–247.

Singer, E. and M. P. Couper. 2017. Some methodological uses of responses to open questions and other verbatim comments in quantitative surveys. *Methods, Data, Analyses: A Journal for Quantitative Methods and Survey Methodology* 11.2: 115–134.

Singleton, J. L., G. Jones, and S. Hanumantha. 2014. Toward ethical research practice with Deaf participants. *Journal of Empirical Research on Human Research Ethics* 9.3: 59–66.

Singleton, R. A., Jr. and B. C. Straits. 2018. *Approaches to Social Research*. 6th ed. Oxford: Oxford University Press.

Sistilli, A. n.d. Twitter Data Mining: A Guide to Big Data Analytics Using Python. *Toptal.com*. https://www.toptal.com/python/twitter-data-mining-using-python.

Smeijers, A. S., B. van den Bogaerde, M. H. Ens-Dokkum, and A. M. Oudesluys-Murphy. 2014. Scientific-based translation of standardized questionnaires into sign language of the Netherlands. In B. Nicodemus and M. Metzger, eds. *Investigations in Health Care Interpreting*. Washington: Gallaudet University Press, 277–302.

Smith, B., M. Ehala, and H. Giles, H. 2018. Vitality theory. In H. Giles and J. Harwood, eds. *The Oxford Encyclopedia of Intergroup Communication*. Vol. 2. New York: Oxford University Press, 485–500.

Smyth, J. D., D. A. Dillman, L. M. Christian, and M. McBride. 2009. Open-ended questions in web surveys: Can increasing the size of answer boxes and providing extra verbal instructions improve response quality? *Public Opinion Quarterly* 73.2: 325–337.

Smyth, R., G. Jacobs, and H. Rogers. 2003. Male voices and perceived sexual orientation: An experimental and theoretical approach. *Language in Society* 32.3: 329–350.

Snoddon, K. 2016. Whose ASL counts? Linguistic prescriptivism and challenges in the context of parent sign language curriculum development. *International Journal of Bilingualism and Bilingual Education* 21.8: 1004–1015.

Snoddon, K. 2020. Teaching sign language to parents of deaf children in the name of the CEFR: Exploring tensions between plurilingual ideologies and ASL pedagogical ideologies. In A. Kusters, E. M. Green, E. Moriarty, and K. Snoddon, eds. *Sign Language Ideologies in Practice*. Berlin: Mouton de Gruyter/Ishara Press, 143–162.

Solís Obiols, M. 2002. The Matched Guise Technique: A critical approximation to a classic test for formal measurement of language attitudes. *Noves SL. Revista Sociolingüística* 1: 1–6.

Soliz, J. and H. Giles. 2014. Relational and identity processes in communication: A contextual and meta-analytical review of Communication Accommodation Theory. *Annals of the International Communication Association* 38.1: 107–144.

Soukup, B. 2009. *Dialect Use as Interaction Strategy. A Sociolinguistic Study of Contextualization, Speech Perception, and Language Attitudes in Austria*. Vienna: Braumüller.

Soukup, B. 2013a. The measurement of 'language attitudes' – A reappraisal from a constructionist perspective. In T. Kristiansen and S. Grondelaers, eds. *Language (De)standardisation in Late Modern Europe: Experimental Studies*. Oslo: Novus, 251–266.

Soukup, B. 2013b. Austrian dialect as a metonymic device: A cognitive sociolinguistic investigation of Speaker Design and its perceptual implications. *Journal of Pragmatics* 52: 72–82.

Soukup, B. 2013c. On matching speaker (dis)guises – Revisiting a methodological tradition. In S. Grondelaers and T. Kristiansen, eds. *Language (De)Standardization in Late Modern Europe: Experimental Studies*. Oslo: Novus, 267–285.

Soukup, B. 2015. Mixing methods in the study of language attitudes: Theory and application. In A. Prikhodkine and D. R. Preston, eds. *Responses to Language*

Varieties: Variability, Processes and Outcomes. Amsterdam: John Benjamins, 56–84.

Soukup, B. 2019. Sprachreflexion und Kognition: Theorien und Methoden der Spracheinstellungsforschung. In G. Antos, T. Niehr, and J. Spitzmüller, eds. *Handbuch Sprache im Urteil der Öffentlichkeit*. Berlin: de Gruyter, 83–106.

Souza, A. L., K. Byers-Heinlein, and D. Poulin-Dubois. 2013. Bilingual and monolingual children prefer native-accented speakers. *Frontiers in Psychology* 4: 953.

Speed, L. J., E. Wnuk, and A. Majid. 2017. Studying psycholinguistics out of the lab. In A. B. M. de Groot and P. Hagoort, eds. *Research Methods in Psycholinguistics and the Neurobiology of Language: A Practical Guide*. Oxford: Wiley Blackwell, 190–207.

Speelman, D., A. Spruyt, L. Impe, and D. Geeraerts. 2013. Language attitudes revisited: Auditory affective priming. *Journal of Pragmatics* 52: 83–92.

Spence, J. L. and K. Imuta. 2020. Age-related changes in children's accent-based resource distribution. *Journal of Experimental Child Psychology* 193: 104807.

Spencer, K. A. and E. Wiley. 2008. Response priming patterns differ with interstimulus interval duration. *Clinical Linguistics and Phonetics* 22.6: 475–490.

Spilioti, T. and C. Tagg. 2017. The ethics of online research methods in applied linguistics: Challenges, opportunities, and directions in ethical decision-making. *Applied Linguistics Review* 8.2–3: 163–168.

Spooner, R. A. 2020. Permissive vs. prohibitive: Deaf and hard-of-hearing students' perceptions of ASL and English. In A. Kusters, E. M. Green, E. Moriarty, and K. Snoddon, eds. *Sign Language Ideologies in Practice*. Berlin: Mouton de Gruyter/ Ishara Press, 167–184.

Spruyt, A., D. Hermans, J. De Houwer, and P. Eelen. 2002. On the nature of the affective priming effect: Affective priming of naming responses. *Social Cognition* 20.3: 227–256.

Squires, L., ed. 2016. *English in Computer-Mediated Communication: Variation, Representation, and Change*. Berlin: De Gruyter.

Staats, A. W. and C. K. Staats. 1958. Attitudes established by classical conditioning. *The Journal of Abnormal and Social Psychology* 57.1: 37–40.

Staats, C. K. and A. W. Staats. 1957. Meaning established by classical conditioning. *Journal of Experimental Psychology* 54.1: 74–80.

Statistics Canada. 2011. *2011 Census of Canada*. http://www12.statcan.gc.ca/census-recensement/index-eng.cfm?HPA.

Statistics Canada. 2016. *2016 Census of Canada*. https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E.

Steele, J. R. and N. Ambady. 2006. 'Math is hard!' The effect of gender priming on women's attitudes. *Journal of Experimental Social Psychology* 42.4: 428–436.

Stefanescu, A. and P. Georgeault. 2005. Conclusion. In A. Stefanescu and P. Georgeault, eds. *Le français au Québec: Les Nouveaux Defies*. Montreal: Fides, 589–608.

Steffens, M. C. 2004. Is the Implicit Association Test immune to faking? *Experimental Psychology* 51.3: 165–179.

Steinert-Threlkeld, Z. C. 2018. *Twitter as Data*. Cambridge: Cambridge University Press.

Stewart, K. and M. Williams. 2005. Researching online populations: The use of focus groups for social research. *Qualitative Research* 5.4: 395–416.

Stewart, M. A., E. B. Ryan, and H. Giles. 1985. Accent and social class effects on status and solidarity evaluations. *Personality and Social Psychology Bulletin* 11.1: 98–105.

Stoeckle, P. 2014. *Subjektive Dialekträume im alemannischen Dreiländereck*. Hildesheim: Olms.

Strand, E. A. and K. Johnson. 1996. Gradient and visual speaker normalization in the perception of fricatives. In D. Gibbon, ed. *Natural Language Processing and Speech Technology: Results of the 3rd KONVENS Conference, Bielefeld, October 1996*. Berlin: Mouton, 14–26.

StreamR. 2018. P. Barbera. https://cran.r-project.org/web/packages/streamR/streamR.pdf.

Sumner, M. and A. G. Samuel. 2009. The effect of experience on the perception and representation of dialect variants. *Journal of Memory and Language* 60.4: 487–501.

Sun, S. Y. H. and P. Goodyear. 2020. Social co-configuration in online language learning. *Australasian Journal of Educational Technology* 36.2: 13–26.

Supalla, T. and P. Clark. 2014. *Sign Language Archaeology: Understanding the Historical Roots of American Sign Language*. Washington: Gallaudet University Press.

Sutton, S., D. P. French, S. J. Hennings, J. Mitchell, N. J. Wareham, S. Griffin, W. Hardeman, and A. L. Kinmonth. 2003. Eliciting salient beliefs in research on the theory of planned behaviour: The effect of question wording. *Current Psychology* 22.3: 234–251.

Szitó, J. 2020. 'I do know that I have an accent': Identities expressed through English as a lingua franca in Accent Tag videos. In C. Kálmán, ed. *DEAL 2020: A Snapshot of Diversity in English Applied Linguistics*. Budapest: Eötvös University Press, 95–118.

Taboada, M. 2016. Sentiment analysis: An overview from linguistics. *Annual Review of Linguistics* 2.1: 325–347.

Tajfel, H. 1959. A note on Lambert's 'Evaluation reactions to spoken language'. *Canadian Journal of Psychology* 13.2: 86–92.

Tajfel, H. 1981. Social stereotypes and social groups. In J. C. Turner and H. Giles, eds. *Intergroup Behaviour*. Oxford: Blackwell, 144–167.

Tajfel, H. and J. C. Turner. 1986. The social identity theory of intergroup behavior. In S. Worchel and W. G. Austin, eds. *Psychology of Intergroup Relations*. Chicago: Nelson-Hall, 7–24.

Tashakkori, A. and J. W. Creswell. 2007. The new era of mixed methods. *Journal of Mixed Methods Research* 1.1: 3–7.

Tashakkori, A. and C. Teddlie. 2003. *Handbook of Mixed Methods in Social and Behavioral Research*. Thousand Oaks: SAGE.

Teddlie, C. and A. Tashakkori. 2009. *Foundations of Mixed Methods Research: Integrating Quantitative and Qualitative Approaches in the Social and Behavioural Sciences*. London: SAGE.

Teige-Mocigemba, S., K. C. Klauer, and K. Rothermund. 2008. Minimizing method-specific variance in the IAT: A Single Block IAT. *European Journal of Psychological Assessment* 24.4: 237–245.

Teige-Mocigemba, S., K. C. Klauer, and J. W. Sherman. 2010. A practical guide to Implicit Association Tests and related tests. In B. Gawronski and K. Payne, eds. *Handbook of Implicit Social Cognition: Measurement, Theory and Applications*. New York: Guilford, 117–139.

The Language Archive. n.d. *Elan*. https://archive.mpi.nl/tla/elan.

Thompson, C., D. J. Lewis, and S. J. C. Taylor. 2017. The use of video recording in longitudinal focus group research. In R. S. Barbour and D. L. Morgan, eds. *A New Era in Focus Group Research: Challenges, Innovation and Practices*. London: Palgrave Macmillan, 207–226.

Thompson, G. and K. Dooley. 2020. Ensuring translation fidelity in multilingual research. In J. McKinley and H. Rose, eds. *The Routledge Handbook of Research Methods in Applied Linguistics*. Oxon: Routledge, 63–75.

Tió, S. 1948. Teoría Del Espanglish. *Diario de Puerto Rico* October 28.5.

Tobler, W. 1970. A computer movie simulating urban growth in the Detroit region. *Economic Geography* 46.2: 234–240.

Tophinke, D. and E. Ziegler. 2006. 'Aber bitte im Kontext!'. Neue Perspektiven der dialektologischen Einstellungsforschung. In A. Voeste and J. Gessinger, eds. *Dialekt im Wandel. Perspektiven einer neuen Dialektologie*. Osnabrück: OBST, 203–222.

Tophinke, D. and E. Ziegler. 2014. Spontane Dialektthematisierung in der Weblogkommunikation: Interaktiv-kontextuelle Einbettung, semantische Topoi und sprachliche Konstruktionen. In C. Cuonz and R. Studler, eds. *Sprechen über Sprache. Perspektiven und neue Methoden der Spracheinstellungsforschung*. Tübingen: Stauffenburg, 205–242.

Tourangeau, R. 2018. Maintaining respondent trust and protecting their data. In D. L. Vannette and J. A. Krosnick, eds. *The Palgrave Handbook of Survey Research*. Basingstoke: Palgrave Macmillan, 135–141.

Trainor, A. and K. Ahlgren Bouchard. 2013. Exploring and developing reciprocity in research design. *International Journal of Qualitative Studies in Education* 26.8: 986–1003.

Tran, M., L. Cabral, R. Patel, and R. Cusack. 2017. Online recruitment and testing of infants with Mechanical Turk. *Journal of Experimental Child Psychology* 156: 168–178.

Trechter, S. 2017. Social ethics for sociolinguistics. In C. Mallinson, B. Childs, and G. Van Herk, eds. *Data Collection in Sociolinguistics: Methods and Applications*. 2nd ed. London: Routledge, 57–88.

Tucker, G. R. and W. E. Lambert. 1969. White and Negro listeners' reactions to various American-English dialects. *Social Forces* 47.4: 463–468.

Tweepy. An easy-to use Python library for accessing the Twitter API. 2009-. J. Roesslein. http://www.tweepy.org/.

Ura, M., K. S. J. Preston, and J. Mearns. 2015. A measure of prejudice against accented English (MPAAE): Scale development and validation. *Journal of Language and Social Psychology* 34.5: 539–563.

Urla, J., E. Amorrortu, A. Ortega, and J. Goirigolzarri. 2017. Basque standardization and the new speaker: Political praxis and the shifting dynamics of authority and value. In P. Lane, J. Costa, and H. De Korne, eds. *Standardizing Minority Languages: Competing Ideologies of Authority in the Global Periphery*. New York: Routledge, 24–46.

US Census Bureau. 2006. 2010 American community survey 5-year estimates. https://data.census.gov/cedsci/.

van Dijk, T. A. 1985. *Handbook of Discourse Analysis*. Vol. 1–4 London: Academic Press.

van Dijk, T. A. 1993. Principles of critical discourse analysis. *Discourse and Society* 4.2: 249–283.

van Dijk, T. A. 1995. Discourse, power and access. In C. R. Caldas-Coulthard and M. Coulthard, eds. *Texts and Practices. Readings in Critical Discourse Analysis*. London: Routledge, 84–104.

Vande Kamp, M. E. 2002. Auditory Implicit Association Tests. Unpublished PhD dissertation, University of Washington.

Vari, J. and M. Tamburelli. 2020. Standardisation: Bolstering positive attitudes towards endangered language varieties? Evidence from implicit attitudes. *Journal of Multilingual and Multicultural Development*. Online ahead of print: 10.1080/01434632.2020.1829632.

Verplanken, B., G. Hofstee, and H. J. W. Janssen. 1998. Accessibility of affective versus cognitive components of attitudes. *European Journal of Social Psychology* 28.1: 23–35.

Vessey, R. 2013. Too much French? Not enough French? The Vancouver Olympics and a very Canadian ideological debate. *Multilingua* 32.5: 659–682.

Vessey, R. 2016. *Language and Canadian Media: Representations, Ideologies, Policies*. London: Palgrave Macmillan.

Vogel, T. and M. Wänke. 2016. *Attitudes and Attitude Change*. 2nd ed. London: Routledge.

Vogler, R. 2014. Twitter's REST API v1.1 with R (for Linux and Windows). *Joy of Data*. http://www.joyofdata.de/blog/twitters-rest-api-v1-1-with-r-for-linux-and-windows/.

von Polenz, P. 2013. *Deutsche Sprachgeschichte vom Spätmittelalter bis zur Gegenwart. Band 2: 17. und 18. Jahrhundert. 2. Aufl. bearbeitet von Claudine Moulin unter Mitarbeit von Dominic Harion*. Berlin: De Gruyter.

Vouloumanos, A. and J. F. Werker. 2004. Tuned to the signal: The privileged status of speech for young infants. *Developmental Science* 7.3: 270–276.

Vouloumanos, A. and J. F. Werker. 2007. Listening to language at birth: Evidence for a bias for speech in neonates. *Developmental Science* 10.2: 159–164.

Wagner, S. E. 2014. Pinning down enregisterment: Using Pinterest to teach students about dialect enregisterment. *American Speech* 89.2: 208–218.

Walker, A. 2019. The role of dialect experience in topic-based shifts in speech production. *Language Variation and Change* 31.2: 135–163.

Walker, A., C. García, Y. Cortés, and K. Campbell-Kibler. 2014. Comparing social meanings across listener and speaker groups: The indexical field of Spanish /s/. *Language Variation and Change* 26.2: 169–189.

Walker, A., J. Hay, K. Drager, and K. Sanchez. 2018. Divergence in speech perception. *Linguistics* 56.1: 257–278.

Walker, J. 2014. Variation analysis. In R. J. Podesva and D. Sharma, eds. *Research Methods in Linguistics*. Cambridge: Cambridge University Press, 440–459.

Walker, M., A. Szakay, and F. Cox. 2019. Can kiwis and koalas as cultural primes induce perceptual bias in Australian English speaking listeners? *Laboratory Phonology* 10.1: 7.

Walsh, O. 2014. 'Les anglicismes polluent la langue française'. Purist attitudes in France and Quebec. *Journal of French Language Studies* 24.3: 423–449.

Walsh, O. 2016. *Linguistic Purism: Language Attitudes in France and Quebec*. Amsterdam: John Benjamins.

Walsh, O. 2021. The construction of authority in 20th-century language columns in France. In C. Marimón-Llorca and S. Schwarze, eds. *Authoritative Discourse in Language Columns: Linguistic, Ideological and Social Issues.* Berlin: Peter Lang, 65–91.

Walther, J. B. 2007. Selective self-presentation in computer-mediated communication: Hyperpersonal dimensions of technology, language, and cognition. *Computers in Human Behavior* 23.5: 2538–2557.

Warr, D. J. 2005. 'It was fun . . . but we don't usually talk about these things': Analyzing sociable interaction in focus groups. *Qualitative Inquiry* 11.2: 200–225.

Watson, K. and L. Clark. 2013. How salient is the NURSE~SQUARE merger? *English Language and Linguistics* 17.2: 297–323.

Watson, K. and L. Clark. 2015. Exploring listeners' real-time reactions to regional accents. *Language Awareness* 24.1: 38–59.

Watt, D., A. Fabricius, and T. Kendall. 2011. More on vowels: Plotting and normalisation. In M. Di Paolo and M. Yaeger-Dror, eds. *Sociophonetics: A Student's Guide*. Abingdon: Routledge, 107–118.

Watt, D., C. Llamas, P. French, A. Braun, and D. Robertson. 2019. Listener sensitivity to localised accent features using the Geographical Association Test (GAT). Presented at UK Language Variation and Change 12, London, 3–5 September.

Watts, R. J. 2012. Language myths. In J. M. Hernández-Campoy and J. C. Conde-Silvestre, eds. *The Handbook of Historical Sociolinguistics*. Chichester: Wiley Blackwell, 585–606.

Weatherhead, D., K. S. White, and O. Friedman. 2016. Where are you from? Preschoolers infer background from accent. *Journal of Experimental Child Psychology* 143: 171–178.

Weatherhead, D., O. Friedman, and K. S. White. 2019. Preschoolers are sensitive to accent distance. *Journal of Child Language* 46.6: 1058–1072.

Weatherholtz, K., K. Campbell-Kibler, and T. F. Jaeger. 2014. Socially-mediated syntactic alignment. *Language, Variation and Change* 26.3: 387–420.

Weber, J. 2013. *The Deaf House*. Saskatoon: Thistledown Press.

Weber, J. 2020. Interrogating sign language ideologies in the Saskatchewan deaf community: An autoethnography. In A. Kusters, E. M. Green, E. Moriarty, and K. Snoddon, eds. *Sign Language Ideologies in Practice*. Berlin: Mouton de Gruyter/Ishara Press, 25–41.

Weijnen, A. A. 1946. De grenzen tussen de Oost-Noordbrabantse dialecten onderin. In A. A. Weijnen, M. Renders, and J. van Guineken, eds. *Oost-Noordbrabantse dialectproblemen*. Bijdragen En Mededelingen Der Dialectencommissie van de Koninkijke Nederlandse Akademie van Wetenschappen Te Amsterdam. Vol. 8, 1–15.

Wiel, K. 2018. Analyzing Language Attitudes on Facebook: 'Nos Dushi Papiamento/u'. https://sites.temple.edu/tudsc/2018/09/05/nos-dushi-papiamento/.

Weiland, P. 1805. *Nederduitsche spraakkunst*. Amsterdam: Johannes Allart.

Weinberger, S. H. 2017. *The Speech Accent Archive*. George Mason University. http://accent.gmu.edu.

Weinberger, S. H. and S. A. Kunath. 2011. The Speech Accent Archive: Towards a typology of English accents. In J. Newman, H. Baayen, and S. Rice, eds. *Corpus-Based Studies in Language Use, Language Learning, and Language Documentation*. Leiden: Brill, 265–281.

Weinreich, U. 1968. *Languages in Contact*. The Hague: Mouton Publishers.

Weinreich, U., W. Labov, and M. I. Herzog. 1968. Empirical foundations for a theory of language change. In W. P. Lehmann and Y. Malkiel, eds. *Directions for Historical Linguistics*. Austin: University of Texas Press, 95–195.

Wentura, D. and K. Rothermund. 2014. Priming is not priming is not priming. *Social Cognition* 32.Supplement: 47–67.

Werker, J. F. and R. C. Tees. 1984. Cross-language speech perception: Evidence for perceptual reorganization during the first year of life. *Infant Behavior and Development* 7.1: 49–63.

Werker, J. F., L. Polka, and J. E. Pegg. 1997. The conditioned head turn procedure as a method for testing infant speech perception. *Infant and Child Development* 6.3–4: 171–178.

Whynot, L. 2016. *Understanding International Sign: A Sociolinguistic Study*. Washington: Gallaudet University Press.

Wiesinger, P. 2008. Die sprachlichen Verhältnisse und der Weg zur allgemeinen deutschen Schriftsprache in Österreich im 18. und frühen 19. Jahrhundert. In P. Wiesinger. *Das österreichische Deutsch in Gegenwart und Geschichte*. Vienna: LIT, 253–304.

Wigboldus, D. H. J., R. W. Holland, and A. Van Knippenberg. 2004. Single Target Implicit Associations. Unpublished manuscript.

Wikipedia. 2020. *Social Media*. https://en.wikipedia.org/w/index.php?title=Social_media#Most_popular_social_networks.

Willemyns, R. 1997. Niederländisch – Französisch. In H. Goebl, P. H. Nelde, and Z. Stary, eds. *Contact Linguistics: An International Handbook of Contemporary Research*. Vol. 2. Berlin: Walter de Gruyter, 1123–1129.

Willemyns, R. 2006. The Low Countries. In U. Ammon, N. Dittmar, K. J. Mattheier, and P. Trudgill, eds. *Sociolinguistics: An International Handbook of the Science of Language and Society*. 2nd ed., Vol. 3. Berlin: Walter de Gruyter, 1758–1765.

Williams, A., P. Garrett, and N. Coupland. 1999. Dialect recognition. In D. R. Preston, ed. *Handbook of Perceptual Dialectology*. Amsterdam: John Benjamins, 345–358.

Willis, D. 2020. Using social-media data to investigate morphosyntactic variation and dialect syntax in a lesser-used language: Two case studies from Welsh. *Glossa: A Journal of General Linguistics* 5.1. 103.

Wilson, B. 2014. Who is afraid of Bonjour, Hi? http://montreal.ctvnews.ca/who-is-afraid-of-bonjour-hi-1.1708364.

Wilson, P. 1983. *Second-Hand Knowledge: An Inquiry into Cognitive Authority*. Westport: Greenwood.

Wilson, R. and J.-M. Dewaele. 2010. The use of web questionnaires in second language acquisition and bilingualism research. *Second Language Research* 26.1: 103–123.

Winter, B. 2019. *Statistics for Linguists: An Introduction Using R*. London: Routledge.

Winter, J. 1992. Discourse as a resource: Methods of collecting language attitudes. *Australian Review of Applied Linguistics* 15.1: 1–22.

Wojnowicz, M. T., M. J. Ferguson, R. Dale, and M. J. Spivey. 2009. The self-organization of explicit attitudes. *Psychological Science* 20.11: 1428–1435.

Wölck, W. 1973. Attitudes toward Spanish and Quechua in bilingual Peru. In R. W. Shuy and R. W. Fasold, eds. *Language Attitudes: Current Trends and Prospects*. Washington: Georgetown University Press, 129–147.

Woodward, J. 1976. Signs of change: Historical variation in American Sign Language. *Sign Language Studies* 10: 81–94.

Woolard, K. A. 1985. Language variation and cultural hegemony: Toward an integration of sociolinguistic and social theory. *American Ethnologist* 12.4: 738–748.

Woolard, K. A. 1989. *Double Talk: Bilingualism and the Politics of Ethnicity in Catalonia*. Stanford: Stanford University Press.

Woolard, K. A. 1992. Language ideology: Issues and approaches. *Pragmatics* 2.3: 235–249.

Woolard, K. A. 1998. Introduction: Language ideology as a field of inquiry. In B. B. Schieffelin, K. A. Woolard, and P. V. Kroskrity, eds. *Language Ideologies: Practice and Theory*. Oxford: Oxford University Press, 3–47.

Woolard, K. A. and T.-J. Gahng. 1990. Changing language policies and attitudes in autonomous Catalonia. *Language in Society* 19.3: 311–330.

Wooten, J. 2017. Performance-based focus groups. In R. S. Barbour and D. L. Morgan, eds. *A New Era in Focus Group Research: Challenges, Innovation and Practices*. London: Palgrave Macmillan, 251–276.

[W3Techs]. 2020. WorldWideWeb Technology Surveys. Usage statistics of content languages for websites. https://w3techs.com/technologies/overview/content_language.

Wright, S. 2004. *Language Policy and Language Planning: Nationalism and Globalisation*. Basingstoke: Palgrave Macmillan.

Xie, X., L. Liu, and T. F. Jaeger. 2021. Cross-talker generalization in the perception of non-native speech: A large-scale replication. *Journal of Experimental Psychology: General* 150.11: e22–e56.

Yang, C. 2014. Language attitudes toward Northeastern Mandarin and Putonghua (PTH) by young professionals. *Chinese Language and Discourse* 5.1: 211–230.

Yitzhaki, D. 2010. The discourse of Arabic language policies in Israel: Insights from focus groups. *Language Policy* 9: 335–356.

Yook, C. and S. Lindemann. 2013. The role of speaker identification in Korean university students' attitudes towards five varieties of English. *Journal of Multilingual and Multicultural Development* 34.3: 279–296.

Young, A. and B. Temple. 2014. *Approaches to Social Research: The Case of Deaf Studies*. Oxford: Oxford University Press.

Yuasa, I. P. 2010. Creaky voice: A new feminine voice quality for young urban-oriented upwardly mobile American women? *American Speech* 85.3: 315–337.

Zahn, C. J. and R. Hopper. 1985. Measuring language attitudes: The speech evaluation instrument. *Journal of Language and Social Psychology* 4.2: 113–123.

Zappavigna, M. 2015. Searchable talk: The linguistic functions of hashtags. *Social Semiotics* 25.3: 274–291.

Zeshan, U. 2015. 'Making meaning': Communication between sign language users without a shared language. *Cognitive Linguistics* 26.2: 211–260.

Zhao, H. and H. Liu. 2021. (Standard) language ideology and regional Putonghua in Chinese social media: A view from Weibo. *Journal of Multilingual and Multicultural Development* 42.9: 882–896.

Ziegler, J., R. Morato, and J. Snedeker. 2019. Priming semantic structure in Brazilian Portuguese. *Journal of Cultural Cognitive Science* 3.1: 25–37.

Zipp, L. 2014a. Indo-Fijian English: Linguistic diaspora or endonormative stabilization? In M. Hundt and D. Sharma, eds. *English in the Indian Diaspora*. Amsterdam: John Benjamins, 187–213.

Zipp, L. 2014b. *Educated Fiji English: Lexico-Grammar and Variety Status*. Amsterdam: John Benjamins.

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